National Library of Canada
Canadian Theses Service
Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada
Service des thèses canadiennes

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, tests publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30.

NL-339 (r. 88/04)

Canadä

THE UNIVERSITY OF ALBERTA

AN EXPLORATION OF CURRICULUM ADAPTATIONS MADE BY ELEMENTARY SCHOOL TEACHERS

by

Darlene Whitehouse

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DEPARTMENT OF ELEMENTARY EDUCATION

EDMONTON, ALBERTA
SPRING, 1988

Permission has been granted to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film.

The author (copyright owner) has reserved other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without his/her written permission.

L'autorisation a été accordée à la Bibliothèque nationale du Canada de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur (titulaire du droit d'auteur) se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation écrite.

ISBN 0-315-42785-X

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: Darlene Whitehouse

TITLE OF THESIS: An Exploration of Curriculum Adaptations Made by Elementary School Teachers

DEGREE: Master of Education

YEAR THIS DEGREE GRANTED: 1988

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

(Signed) Darlene Whitehouse

PERMANENT ADDRESS:
115 Helen Street
Woodstock, New Brunswick
EOJ 2BO

DATE March 28, 1988

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "An Exploration of Curriculum Adaptations Made by Elementary School Teachers" submitted by Darlene Whitehouse in partial fulfillment of the requirements for the degree of Master of Education.

Jean H. Young
(Supervisor)

R.D. McIntosh

Date: December 19, 1987

DEDICATION

To my parents, Avis and Arlie,
whose ever-present support and encouragement provided
me with sustaining motivation

ABSTRACT

The primary purpose of this study was to investigate the relationship between teachers' sense of comfort with a subject area and the kinds of adaptations which they make in a new curriculum. The teachers' sense of comfort was also studied with respect to their concerns prior to and during implementation of the curriculum.

Thirty-six elementary classroom teachers, employed by four rural school districts in New Brunswick, were chosen to participate in the study. Each of these individuals taught language arts at the grade one, two, three, four, or five levels and was implementing the Expressways Language Arts Program. Participants were also selected on the basis of their professed sense of comfort with the teaching of language arts, and grouped for comparison purposes according to this variable.

The data for the study were generated by an interview schedule and questionnaires which were developed from information gained during the interview sessions.

Analysis of the gathered data indicated that teachers identified personal factors as being most responsible for the sense of comfort which they experienced with the teaching of language arts. In fact, teachers who were very comfortable with language arts gave more evidence of enjoying and being truly interested in the subject than did other teachers in the study.

The teachers' sense of comfort with the teaching of language arts appeared to be related to both the number and type of concerns which they experienced both prior to and during the implementation of the Expressways Program. A more tenuous relationship was found between the teachers' sense of comfort and types of adaptations which they made during implementation. Teachers who professed being most comfortable with language arts were more inclined to depart from the curriculum than were teachers who experienced less comfort with the subject. The teachers in the latter case were more likely to adapt the curriculum by stressing those activities and strategies with which they were more comfortable. There were also some adaptations that teachers made in the Expressways Program which did not appear to be motivated by teachers' sense of comfort with language arts.

Although teachers cited a variety of reasons for adapting the new curriculum, there was not a strong relationship between these reasons and the concerns which teachers experienced while implementing the Expressways Program. The reasons given for curriculum adaptations did, however, vary somewhat according to teachers' sense of comfort with language arts.

ACKNOWLEDGEMENTS

The assistance and encouragement of many individuals make a project of this nature a reality. The author wishes to express her deepest appreciation to her supervisor, Dr. J.H. Young, who gave so generously of her time and expertise. Dr. Young's constructive guidance and ever-present encouragement were instrumental in the development and completion of this study.

To the other members of the examining committee, Dr. W.D. Wilde and Dr. R.G. McIntosh, the author is grateful for their suggestions and valuable reactions regarding the study.

Recognition is also given to Dr. T.O. Maguire for his perceptive and practical ideas on data analysis.

A special thanks is extended to the thirty-six very dedicated elementary school teachers who took the time to share their experiences with the implementation of a new curriculum, as well as those teachers who took part in the pilot study.

Appreciation is expressed to Winnifred Miller and Janis Shaw for their proof-reading of materials during the writing period of this project, as well as their continual encouragement.

In conclusion the author wishes to acknowledge the support and cooperation of her office mates and classmates while in attendance at the University of Alberta.

TABLE OF CONTENTS

CHAPTER PAGE

I THE ESSENCE AND RELEVANCY OF THE PROBLEM 1
  Introduction 1
  Need for the Study 3
  Purpose of the Study 4
  Definition of Terms 5
  Overview of the Study 6
  Assumptions 7
  Limitations of the Study 7
  Significance of the Study 8
  Organization of the Study 9
II REVIEW OF RELATED LITERATURE AND RESEARCH 11
  Introduction 11
  Kinds of Adaptations 12
    Modifications in Goals or Objectives 12
    Content Changes 16
    Changes in Teaching Methodology or Teacher Role-Behaviour 18
    Structural Changes in the Classroom 22
    Changes in the Usage of Instructional Resources ... 24
    Assessment Changes 26
  Reasons for Adaptations 28
    Teacher Characteristics 28

CHAPTER PAGE

Student Characteristics 34

Project Characteristics 35

Implementation Strategies 37

Organizational Characteristics 40

Relevance of the Literature Review 43

III THE DESIGN OF THE STUDY 44

Methodology 44

Development of the Measuring Instruments 47

The Sense of Comfort Survey 47

Stage One 47

Stage Two 48

Stage Three 49

The Interview Schedule 50

Stage One 50

Stage Two 51

Stage Three 52

Questionnaires 52

Stage One 53

Stage Two 56

Stage Three 57

Population and Sample 58

The Pilot Study 59

Phase One 60

Phase Two 61

CHAPTER PAGE

Phase Three 63

Data Collection Procedures 65

The Sense of Comfort Survey 65

Selection of the Sample 67

Initial Contact with the Respondents 71

The Interview 72

The Questionnaires 75

Data Analysis Procedures 78

Interview Transcripts 78

The Questionnaires 78

Part One 78

Part Two 79

Part Three 80

Part Four 82

Summary 84

IV ANALYSIS OF THE DATA 85

Factors Contributing to Sense of Comfort with Language Arts 85

Relative Importance of Factors Contributing to Sense of Comfort 89

Comparison of Factors Selected by Groups One and Two 92

Factors Which Negatively Influence Sense of Comfort 98

CHAPTER PAGE

Summary of Conclusions Related to Sense of Comfort 104

Curricular Implementation Concerns 105

Concerns Experienced Prior to Implementation 106

Comparison of the Concerns Experienced by the Three Groups Prior to Implementation 113

Concerns Experienced During Implementation 120

Comparison of the Concerns Experienced by the Three Groups During Implementation 131

Summary of Conclusions Related to Implementation Concerns 136

Curriculum Adaptations 137

Adaptations in the Underlying Goals 138

Adaptations in the Reading Component 143

Adaptations in the Writing Component 148

Adaptations in the Listening Component 153

Adaptations in the Speaking Component 156

Adaptations in the Evaluation Component 160

Adaptations in the Ancillary Materials 167

Adaptations in the Optional Activities 173

Adaptations in the Spelling Component 173

Summary of Conclusions Related to Curriculum Adaptations 177

Reasons for Adapting the Expressways Program 179

CHAPTER PAGE

Summary of Conclusions Related to Reasons for Adapting the Expressways Program 193

Summary 195

V SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 196

Summary of the Research Problem and Methodology 196

Conclusions Based on the Study Findings 199

Conclusions to the Research Questions 200

Question 1 200

Question 2 201

Question 3 202

Question 4 203

Profiles of the Three Groups of Teachers 204

Profile of Teachers In Group One 204

Profile of Teachers In Group Two 206

Profile of Teachers In Group Three 209

Recommendations 211

For In-service Teacher Education 212

For Curriculum Development 214

For Staff Development 216

For Preservice Teacher Education 217

For Further Research 218

REFERENCE LIST 220

APPENDICES 227

Appendix A. Sense of Comfort Survey 227

CHAPTER PAGE

Appendix B. Interview Schedule 229

Appendix C. Questionnaire: Factors Contributing to Teachers' Sense of Comfort With the Teaching of Language Arts 237

Appendix D. Questionnaire: Concerns Existing Prior to the Implementation of the Expressways Program 239

Appendix E. Questionnaire: Concerns Experienced During the Implementation of the Expressways Program 241

Appendix F. Questionnaire: Kinds of Adaptations Made In the Expressways Program 244

Appendix G. Questionnaire: Reasons for Adapting the Expressways Program 256

Appendix H. Results of Questionnaire on Kinds of Adaptations Made In the Expressways Program 258

LIST OF TABLES

TABLE	DESCRIPTION	PAGE
1	Expressways Users' Sense of Comfort with the Teaching of Language Arts	68
2	Categorization of Responses Related to Wanting or Needing a Prescribed Curriculum	70
3	Summary of Factors Which Contributed to Teachers' Sense of Comfort With Language Arts	87
4	First-Ranked Factors Which Contributed to Teachers' Sense of Comfort With Language Arts	94
5	Factors Contributing to Teachers' Sense of Discomfort With the Teaching of Language Arts	101
6	Summary of All Concerns Experienced Prior to the Implementation of the Expressways Program	107
7	Distribution of Concerns Experienced Prior to Implementation	114
8	First-Ranked Concerns Experienced Prior to the Implementation of the Expressways Program	119
9	Summary of All Concerns Experienced During the Implementation of the Expressways Program	121
10	First-Ranked Concerns Experienced During the Implementation of the Expressways Program	128
11	Distribution of Concerns Experienced During Implementation	132
12	Adaptations In the Underlying Goals	139
13	Adaptations In the Reading Component	144
14	Adaptations In the Writing Component	149
15	Adaptations In the Listening Component	154
16	Adaptations In the Speaking Component	157

TABLE	DESCRIPTION	PAGE
17	Adaptations In the Evaluation Component	162
18	Adaptations In the Ancillary Materials	168
19	Adaptations In the Optional Activities	174
20	Adaptations In the Spelling Component	175
21	Summary of All Reasons Given for Adapting the Expressways Program	181
22	First-Ranked Reasons for Adapting the Expressways Program	190

CHAPTER I

THE ESSENCE AND RELEVANCY OF THE PROBLEM

Introduction

As a result of the influx of educational innovations over the past two decades, considerable attention has been focused on gaining an understanding of what is actually involved in the implementation of a change effort. The purpose underlying the majority of such studies has been to determine "the extent to which actual use of [an] innovation corresponds to intended or planned use" (Fullan & Pomfret, 1977, p. 240) and to discover factors and conditions which facilitate the faithful usage of innovations in classrooms. During the last few years, however, there has been a growing concern about the wisdom of investigating implementation almost exclusively from a fidelity perspective. Individuals have begun to question the commonly made assumption that teachers are passive recipients of change and therefore once a decision to adopt an educational change is made it will invariably appear in practice.

Connelly and Ben-Peretz (1980) stress that researchers and developers of curricular innovations need to recognize "that teachers do not neutrally implement programmes; they develop programmes of study for their classrooms by adaptation, translation, and modification of given programmes and research findings; they may even develop their own curriculum materials" (p. 95). This view is supported by numerous research efforts which have found evidence indicating that many educational innovations fail to become established according to the criteria proposed by the developers of the intended changes (Berman & McLaughlin, 1976; Fullan & Pomfret, 1977; Goodlad, Klein, & Associates, 1970).

According to Sarason (1982), those who are responsible for introducing innovations at the school level must be ever mindful of the fact that educational change depends on what individual teachers do and think (p. 232). He contends that to disregard the subjective reality of change drastically reduces the chance of real change ever occurring. This idea that teachers play a crucial role in implementation is emphasized by Berry, Friesen, and Hersom (1971) who suggest that " . . . the real maker of curriculum, the decider of decisions, the answerer of questions, is the teacher in the classroom after the door is closed" (p. 4).

The fidelity approach to implementation is further challenged by individuals who feel that certain misperceptions exist about implementation. Gephart (cited by Owens & Haenn, 1977) strongly rejects the notion that innovations can be replicated in different classrooms with teachers of varying capability and interest in the innovation. In his opinion:

> The belief that greater program fidelity will result in more positive student and program outcomes is fallacious. This myth assumes that the demonstration model being replicated is the ideal. In reality, no model is perfect; at best, it is only a working guide based on procedures which were demonstrably effective in one or more pilot testing sites. Therefore, there can be no assurance that high fidelity implementation will yield any better results than those obtained from a less faithful site. (pp. 6-7)

This view is supported by Miel (1973) who advocates that "at best, the given curriculum is a resource for teachers . . . further curriculum planning is called for at the classroom level to adjust it to the children" (p. 109). The findings of the Rand Change Agent Study which focused on the implementation of local innovations demonstrate strong agreement with the foregoing positions. Researchers discovered that

> where implementation was successful and where significant change in participant attitudes, skills, and behaviours occurred, implementation was characterized by a process of mutual adaptation in which project goals and methods were modified to suit the needs and interests of the local staff and in which that staff changed to meet the requirements of the project. (McLaughlin, 1976, p. 169)

Need for the Study

While much research energy has been concentrated on determining the extent to which an innovation in practice matches the developer's ideal, little has been done to discern the ways in which teachers adapt new approaches or programs to suit their own teaching situations. Hall and Loucks (1981) contend that a deeper understanding of the phenomenon of implementation warrants studies which focus specifically on adaptation and the factors which motivate this process. It is their belief that such research gives promise of providing information pertinent to the replication/adaptation issue which will assist educationists who are responsible for planning change efforts.

Consequently, this study was designed to explore the different ways in which teachers adapt a new curriculum and their reasons for making such adaptations. The study also gave significant consideration to the possible effect that a teacher's sense of comfort with the teaching of a subject could have on the implementation of an innovation, an aspect which the literature reveals has not been studied in relation to the change process. The fact that teachers play a crucial role during implementation (Fullan, 1982; Sarason, 1982), indicates the need for understanding the potential influence of different personal characteristics of the teacher on the implementation of a change effort. It was hoped that the information gained from the study would add a new dimension to our present knowledge about implementation.

Purpose of the Study

The primary purpose of this study was to investigate the kinds of adaptations teachers made in a new curriculum when implementing it in their own classrooms with a particular group of students. Equally important were the reasons why teachers felt such adaptations were necessary. An attempt was also made to discover any concerns teachers experienced due to the implementation of the curriculum. The final purpose of the study was to explore the possible influence of a teacher's sense of comfort with the teaching of language arts on the implementation of a curriculum in that subject area.

It was expected that the analysis of the data gathered during the study would provide answers to the following questions:

1. Where does a teacher's sense of comfort with the teaching of a subject area originate?

2. Is there a relationship between teachers' sense of comfort with a subject area and the concerns that they experience about implementing a new curriculum in the same subject area?

3. Is there a relationship between teachers' sense of comfort with a subject area and the kinds of adaptations that they make in a new curriculum in the same subject area?

4. Is there a relationship between teachers' reasons for adapting a new curriculum and the concerns they experience during the actual implementation of the curriculum?

Definition of Terms

The following are definitions of terms as they are used in the study.

Curriculum: This term is used to describe a written document which indicates what is to be taught and how it is to be taught. The Expressways Program is referred to throughout the study as a language arts curriculum.

Implementation: This term is used to describe the phase of the change process which involves the experiences of putting an idea or program into practice.

Adaptation: This term is used to describe a change in what is specified to be taught or how it is to be taught. It may include additions, deletions, and modifications to a curriculum.

Overview of the Study

The sample was composed of 36 elementary teachers from four rural school districts in New Brunswick. These individuals were selected on the basis of their professed sense of comfort with the teaching of language arts and grouped accordingly to facilitate comparisons of their responses.

The vehicle used to investigate implementation concerns and kinds of curriculum adaptations was the Expressways Program, a language arts curriculum being implemented in the elementary schools throughout the school districts involved in the study.

Three types of instruments were developed to gather data pertaining to the research questions underlying the study: a sense of comfort survey, an interview schedule, and questionnaires. The sense of comfort survey was administered to all elementary classroom teachers in the four school districts. It required teachers to place eight subjects on a continuum ranging from most comfortable to least comfortable. The interview schedule was used with only the 36 teachers chosen as the study sample. It was made up of three distinct sections, each focusing on a major topic of concern in the study: sense of comfort with subjects, implementation concerns, and curriculum adaptations. Once the interviews were completed, questionnaires were designed based on data gained from these sessions. The same 36 teachers who participated in the interviews were also asked to complete questionnaires. The questionnaires which focused on sense of comfort, implementation concerns, and reasons for adaptations, required teachers to rank items according to their degree of importance or influence. The questionnaire pertaining to curriculum adaptations included descriptions of adaptations and a five-point Likert scale for respondents to indicate the level of frequency with which they made such adaptations.

Assumptions

For the purpose of this study the following assumptions have been made.

1. There are recognizable differences in teachers' sense of comfort with a subject area.

2. Teachers adapt curricula in a variety of ways and in varying degrees.

3. Teachers can recall the adaptations which they have made in a curriculum and the reasons why they made the adaptations.

Limitations of the Study

In this study the following limitations must be recognized.

1. Teachers may have varied in their ability to recall and describe the kinds of adaptations they had made in the language arts curriculum. It is also quite possible that their responses were influenced by what they assumed would be defensible adaptations.

2. A major portion of the information yield was the result of a structured interview. Interviews, like all data collection techniques, have their weaknesses. For example, there is the question of the researcher's interviewing skills and the problem of the accuracy of

self-reporting by the respondents. The pilot test was conducted in an attempt to improve the researcher's ability to develop a rapport with respondents and to probe for valid responses.

3. Because the individuals in the study sample were limited to elementary school teachers who were implementing a language arts curriculum, the findings of the study may not be generalizable to another subject area or to teachers at other grade levels.

4. There may be a significant gap between what teachers perceive themselves to do in relation to curriculum adaptations and what in fact they practise in the classroom.

Significance of the Study

Since few studies have focused specifically on how teachers adapt educational innovations, this study should contribute to a greater understanding of this process of adaptation as well as some issues related to implementation. Furthermore, because of its exploratory nature, the study could identify variables or relationships that serve as stimuli to generate further research on adaptation or another aspect of implementation.

This study could have implications for the design of professional development activities provided to facilitate the implementation of various innovations. The information gained in relation to the concerns teachers experienced both prior to and during the implementation of a new curriculum may suggest the kinds of assistance teachers find most beneficial and the time at which they prefer to receive that assistance.

The findings of this study could prove to be valuable to individuals who engage in curriculum development. They may suggest the need to develop alternative curricula to accommodate particular kinds of adaptations made by different teachers.

The requirement that participants in the study reflect on the kinds of adaptations they had made in a curriculum and the reasons which motivated such changes could prove to be beneficial to them in their future teaching by raising their level of consciousness regarding this issue.

Organization of the Study

This chapter has presented some of the research which led to the formulation of the research problem and a general overview of the study. The purposes of the study were outlined and the specific research questions were delineated. Definitions of terms used in the study were provided and the limitations and assumptions underlying the study were described. The significance of the study was also discussed.

Chapter II presents a review of the literature as a background for the study. The first section discusses kinds of adaptations which teachers have made in various educational innovations, while the second section outlines various reasons which may have motivated such adaptations.

Chapter III describes the design of the study and the development of the measuring instruments. Characteristics of the study sample are provided as well as the means by which teachers were selected to become participants in the study. Results of the pilot study and the procedure used to collect and analyze the data are reported.

Chapter IV presents in tabular and written form the findings of the investigation as they relate to the research questions.

Chapter V contains a summary of the study and the conclusions drawn from the findings. Recommendations for teacher education, curriculum development, and further research are also provided.

CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

Introduction

This review of the literature related to instituting innovations in educational systems has two basic objectives: first, to foster an understanding of the different kinds of adaptations that teachers have made in various innovations; and second, to promote an awareness of the factors that have motivated such adaptations. Consequently, for purposes of clarification the findings are organized in two major sections according to the established objectives.

Although there is an abundance of studies that have investigated some aspect of educational change, there are only a limited number which have focused specifically on how teachers adapt educational innovations to suit their own teaching situations. For this reason, studies with a fidelity orientation in which researchers endeavoured to assess the degree to which an innovation's operational form corresponded to the developer's intended form were also reviewed, as well as research that examined specific approaches to educational change. Information relating to adaptations made in innovations or reasons for such occurrences was extrapolated and reported in this chapter.

Kinds of Adaptations

Over the past several decades schools throughout the world have experienced the influx of numerous educational innovations. A basic assumption commonly associated with the majority of such change efforts was that, once district and school administrators or the designated users agreed to the adoption of an innovation, it would be implemented automatically without local site modifications. An extensive review of research and literature concerned with educational change proved that this assumption was erroneous. In fact, the review revealed various adaptations that teachers have made in different aspects of particular innovations. In order to facilitate understanding of these adaptations, the author grouped them into six major categories. Although there is an absence of clear lines of demarcation among the categories, the distinguishing characteristics of each are evident.

Modifications in Goals or Objectives

The principal difference between goals and objectives lies in their degree of specificity, with the latter in most cases referring to more immediate and precise outcomes to be reached. "At precisely what point on the continuum an objective becomes a goal, [however], . . . is impossible to specify" (Zais, 1976, p. 307). Consequently, there are studies of the implementation of innovations in which researchers use these concepts interchangeably.

During the 1950s and 1960s several educational acts were passed in the United States which precipitated the design of federal "seed money" programs to introduce and promote change in educational practices (Berman & McLaughlin, 1976). In an attempt to assess the outcomes of efforts to implement these federally sponsored projects the Rand Change Agent Study, an extensive research project supported by the United States Office of Education, found that teachers changed project goals in a variety of ways. This was particularly evident in the case study component of the Rand Study which focused on 29 projects in 25 school districts (Greenwood, Mann, & McLaughlin, 1975). Interviews and observations revealed that when teachers realized they could not acquire specific skills and behaviours as quickly as had been targeted, they made reductions in those goals requiring significant amounts of change on the part of involved personnel. This was usually accomplished by either redefining particular goals in more general terms or omitting some of the goals stipulated by the developers of the innovation. In cases where the goals of an innovation were not specific, they were frequently disregarded. Still other modifications were made in organizational goals to accommodate the realities of different schools.

For a two-year period in the mid-1970s Messerschmidt (1979) followed closely the innovative efforts of a newly formed district to implement an Experimental Schools project funded by the federal government. The case study described how the five major goals of the project were adapted during that period of time. One of the goals pertaining to career education was given priority because it reflected an outstanding local concern. Another goal which designated providing special services to students was adjusted to signify strictly guidance counselling.

> By the end of the first year of implementation . . . the goals of involving the citizenry and of coordinating programs had been modified and redefined as idealism concerning the nature of the new district wore off and as more pragmatic and immediate objectives emerged. (pp. 76-77)

In an attempt to determine how effectively innovative practices supported by federal programs were disseminated, Huberman and Miles (1984) conducted extensive field studies at 12 participating sites. Their findings indicated that adaptations were made in the key aspects or goals of the projects. In the "overreaching" projects which were organizationally ambitious and placed great demands on the teachers, goals were adapted which lead to "more mechanization and structure that streamlined procedures and lowered personal involvement" (p. 147). At sites where projects fit poorly with organizational norms and procedures, many idiosyncratic changes were made in the proposed goals to alleviate situational constraints. In two districts, project goals were dramatically reduced when implementation of the projects was initially attempted but then partially reinstated when administrators began to work more closely with project users. Interestingly enough only very minor modifications were made in the goals of those projects that were strictly monitored by building-level administrators.

Hamilton (1975) traced the responses of two Scottish schools to the adoption of an integrated science curriculum and discovered little evidence to indicate that teachers were actually integrating the various sciences. The findings revealed that one school had only a superficial kind of integration and that over a period of time the other school reverted to teaching physics, chemistry, and biology as separate subjects. In both cases, the major underlying goal of the new science curriculum had been significantly modified.

In the hope of capturing the classroom teacher's perspective on change, Boag (1980) spent three months with two grade two teachers as they attempted to implement a multimedia resource kit designed to be used as part of the social studies curriculum. His field work indicated that despite the fact that an inquiry teaching approach was part of the basic philosophy on which the kit was developed, the teachers focused attention on competency (i.e., right answers) rather than on process skills.

When McCutcheon (1980) studied how elementary teachers did their instructional and curriculum planning she made a similar observation. Teachers stated that although discovery learning was a major goal in many of the published science and social studies programs, the limited time allotted for the teaching of these subjects precluded the utilization of this particular pedagogical strategy.

In his study which explored the relationship between teacher beliefs and curriculum implementation, Kimpston (1985) found that the emphasis teachers gave to specific language arts objectives was significantly different from that stipulated by the district. This lack of congruence between actual and specified teaching emphasis was especially evident at the junior and senior high grade levels.

Content Changes

The term content has been broadly interpreted by researchers who have tried to gain a greater understanding of the dynamics of educational change. Concepts, principles, subject matter, units of study, and the vehicle or means for communicating knowledge have all been referred to as content.

Huberman and Miles (1984), in their study of a district's attempt to implement a comprehensive reading intervention program, discovered that teachers made a variety of adaptations in the content of the program. They left out small sections of different units, eliminated a particular unit, and rearranged sequences of the subject matter. In the same field study component of a larger research project, Huberman and Miles focused on the responses of several elementary schools to a supplementary social studies curriculum developed especially for their district. They learned that teachers supplemented the curriculum with instructional activities and resource materials, rearranged the sequence of activities that were at a higher level than students could handle, and occasionally reverted to the use of familiar content.

The introduction of the Kanata Kit 2 as part of the provincial social studies program in Alberta afforded Boag (1980) and Odynak (1981) the opportunity to conduct in-depth field studies to determine how several teachers used this resource kit in their social studies classes. Both researchers reported that two significant kinds of adaptations were frequently made in the prescribed content. They observed that teachers made reductions in the subject matter developers had indicated would be appropriate for specific grade levels in order to eliminate the problem of information overload for students and that they changed some content because of its lack of relevancy to the needs and interests of young children or because some concepts were too abstract for students to fully understand.

During the 1970s a diagnostic/prescriptive approach to reading instruction was being promoted as an effective means of improving a student's reading achievement. In a summary of the findings of a field study that examined the implementation process of six such reading projects in central city school districts in the United States, Wirt (1978) stated that schools significantly modified commercial reading systems according to their own perceptions of students' needs. Instead of using all the provided components of a reading system, teachers often elected to implement either one component or another. For example, some teachers chose to use the word attack component and to omit the study skills component, while other individuals decided to do just the opposite. According to Wirt, adaptations in content were not restricted solely to the selection of the core components. Many teachers made further modifications within the components by using only particular sections with their students.

McCutcheon (1980), in her study of how teachers planned, documented several kinds of adaptations that teachers made in the content of different curricula. The deletion of content children already knew, the introduction of topics in science, social studies, language, and art which were of particular interest to the teacher, and the revision of lessons in textbooks to motivate a higher level of thinking among the children were types of changes that teachers within different schools were observed to make.

In a major study to determine whether innovative educational practices were actually finding their way into classrooms in the United States, Goodlad, Klein, and Associates (1970) discovered that a particular change in curricular content was prominent in many of the classrooms selected for their study sample. The quantity of independent activities decreased dramatically with upward progression through the grades. In fact, "no independent activities were visible in more than half of the classes" (Goodlad, Klein, & Associates, p. 59).

Olson (1980) observed that teachers construed the discussion material in an integrated science project in various ways. One teacher used it as end-of-chapter questions and had the students do written responses. Another teacher considered discussions to be occasions for students to talk freely and therefore did not treat them as serious work. Still another teacher interpreted discussion material as if it were new information that was to be taught by the teacher.

Changes in Teaching Methodology or Teacher Role-Behaviour

Research evidence suggests that the most problematic aspect of curriculum implementation is to bring about change "in the roles and role relationships of those organizational members most directly involved in putting [an] innovation into practice" (Fullan & Pomfret, 1977, p. 337).

When surveying the literature pertaining to curricular changes, the researcher found that a number of studies strongly supported this projected hypothesis. Although many educational innovations had as one of their main objectives to increase student autonomy in learning situations by having teachers act more as catalysts for learning than as dispensers of information (i.e., inquiry-centered approach), in many such instances teaching styles did not change. Teachers frequently adopted a more dominant role or teacher-centered approach than was intended (Boag, 1980; Elliott, 1976; Evans & Scheffler, cited by Fullan & Pomfret, 1977; Goodlad, Klein, & Associates, 1970; Gross, Giacquinta, & Bernstein, 1975; House, 1971; Huberman & Miles, 1984; Kelly, 1980; McCutcheon, 1980; Odynak, 1981; Tisher & Power, 1978). According to House (p. 113) some teachers found "covert ways of maintaining control like disguising their grading system or issuing black marks for late or missing work."

In the cases where teachers actually tried to change their instructional orientation to correspond to the strategies underlying the innovation, efforts were not generally long lasting. Over a period of time they either incorporated certain aspects of the new approach with ideas from their instructional repertoire or reverted totally to their former practices.

Smith and Keith (1971) studied a novel situation which included a new and uniquely designed elementary school, a staff who were nearly all new to the school district, and an official set of directives which gave education a new perspective. "The program was to capture team teaching with all of its varying organizational possibilities--ungradedness, total democractic pupil-teacher decision-making, absence of curriculum guides, and a learner-centered environment" (p. 11). The findings of Smith and Keith's case study revealed, however, that over a period of a year team teaching gave way to a kind of departmentalization. The concept was further adapted when teachers moved towards using textbooks and having open areas changed to self-contained classrooms.

Goodlad, Klein, and Associates (1970) noted similar kinds of adaptations in pedagogical approaches when doing the classroom observation component of their study. They found that "team teaching more often than not was some pattern of departmentalization . . . and the content of curriculum projects tended to be conveyed with the baggage of traditional methodology" (p. 72). In some schools that reported using team teaching it was only carried on for a portion of the school day and even then it sometimes simply entailed having a specialist work with a group of students for a limited period of time.

Staff at the Research and Development Center for Teacher Education at the University of Texas also found evidence of variations in how teachers carried out team teaching (Hall & Loucks, 1981). One team was found to consist of "two teachers who met once a month to share lesson plans, and kept their own classes intact through the school year" (p. 9). Another team included four teachers who planned together one afternoon each week and exchanged students for different subject areas.

In completing case studies of two districts' attempts to implement individualized programs based on diagnosis of students' needs and learning styles, Clinton (1979) and Firestone (1979) discovered that the operationalized form of this teaching methodology varied extensively from its original written form. For some teachers filling out the diagnosis and prescription (d/p) sheets became an end in itself. Other teachers in the same district adapted the approach by using a "batching process" (Firestone, 1979, p. 178) which resulted in groups of students being diagnosed simultaneously and ultimately receiving the same instruction. Clinton reported that the teachers he observed failed to do the necessary record keeping, which in essence virtually stymied any workable form of the individualized teaching mode.

The results of a study by Evans and Scheffler (cited by Fullan & Pomfret, 1977) designed to measure the degree of implementation of an individualized math curriculum demonstrated agreement with Clinton's (1979) findings. They established that "numerous teachers [were] not adequately analyzing, diagnosing, and prescribing on the basis of student deficiencies" (p. 347). Daily student-teacher interaction appeared to be based on group norms and expectancies rather than on individual differences in learning rates and needs.

Huberman and Miles (1984) noticed similar changes in pertinent record keeping and diagnosing of students' needs when studying how effective a number of districts were in implementing federally approved programs. Their study also showed that teachers sometimes eliminated individual student conferences that were deemed essential by the developers of the innovation in question. In one district they found that teachers adapted an early childhood program by changing it from a whole class approach to a pullout format where only certain children worked with components of the program.

Structural Changes in the Classroom

This category deals with changes in the physical conditions and formal arrangements under which the users of an innovation interact. In an extensive review of 15 implementation studies, Fullan and Pomfret (1977) learned that such changes were often considered to be the easiest to implement. Despite this finding, however, some teachers have been noted to adapt structural criteria defined by educational innovations.

One of the most frequently documented adaptations of this kind is related to the grouping of students. Goodlad, Klein, and Associates (1970) noted that in schools which claimed to be nongraded there was evidence of interclass grouping by homogeneity in ability and achievement.

In following the development of an innovative school which purported to have a highly individualized philosophy towards student learning, Smith and Klein (1971) reported that "the day-to-day functioning reality was not totally congruent with this doctrine" (p. 50). Although there were no rigidly defined levels or specific grades, the teachers did establish three divisions: the Basic Skills Division, the Transition Division, and the Independent Study Division, to facilitate the development of instructional activities. In fact, towards the end of the first year for the Kensington School, teachers were grouping within the divisions and asking for physical partitions to section off the open learning areas.

In her study of how one teacher used a multimedia kit in conjunction with her social studies program, Odynak (1981) observed that many small group decision-making activities were changed to larger group or whole class activities. Other researchers (Emrick, Peterson, & Agarwala-Rogers, 1977; Huberman & Miles, 1984) discovered cases where teachers either used fewer groups than were proposed by the innovation or favoured greater use of grouping than was stipulated.

In an attempt to help some students meet minimal competency levels in the basics, a rural district in the United States implemented a pullout remedial lab (Huberman & Miles, 1984). The developers of the innovation advocated that students use this learning device in three to five week cycles. The teachers, however, adapted this schedule and had students work in the lab all year.

Due to a growing high school drop-out rate, a school district in southwestern United States decided to implement the idea of a "transition school" (Huberman & Miles, 1984, p. 28). Upon attending the school for a possible time period of up to 90 days, it was intended that students would return to the regular school. By the fourth year of the school's operation teachers had modified the structure of the school to the degree that it was considered to be an alternative school that offered three main programs--academic, general education, and life skills. Only traces of the original integrity of the project remained.

Several studies have documented that teachers adapted their schedules by using time allotted for science, health, social studies, or art for additional instruction in language arts (Goodlad, Klein, & Associates, 1970; McCutcheon, 1980; Odynak, 1971; Smith & Keith, 1971). This adaptation tended to occur even if curricular innovations were being introduced in the subject areas of science, social studies, health, or art.

Changes in the Usage of Instructional Resources

This category describes kinds of adaptations that teachers have made in resources prescribed as being most appropriate for achieving the goals and objectives of educational innovations.

Huberman and Miles (1984) discovered that in two districts where new programs were being implemented the majority of involved teachers made limited use of community resources, a feature of the program seen as essential by the developers. In fact, in one district they found that "no user engaged students in community activities" (p. 21). At another site in their study, Huberman and Miles learned that parents were rarely involved in the project being implemented even though their participation had originally been recommended. Goodlad, Klein, and Associates' study (1970) revealed a similar kind of adaptation in human resources. The researchers reported that "supervisors and special resource personnel from the central office rarely were seen" (p. 87) in the classrooms or at the schools.

Contrasting results were obtained by a field work component of the Rand Study that focused on the implementation of diagnostic/prescriptive approaches to reading. Wirt (1978) indicated that in several districts involved with such reading projects "an early decision was made to hire a full-time reading specialist teacher . . . to aid in implementation" (p. 37). This adaptation was particularly significant because federal guidelines emphasized using existing resources as much as possible.

Two studies that investigated the implementation of new science curricula showed that teachers used suggested resources differently than were intended by the developers (Olson, 1980; Hamilton, 1975). According to Olson, teachers treated a list of concepts and generalizations provided to illustrate one of the themes of the program as a syllabus. A similar finding was reported by Hamilton who observed that teachers used student worksheets as a curriculum guide.

In carrying out classroom observations, Goodlad, Klein, and Associates (1970) noted that the new audio-visual equipment (e.g., phonographs, tape recorders, slide projectors, television sets, and overhead projectors) was available in many rooms but that it was rarely in use. Smith and Klein (1971) found evidence of this same tendency when attempting to ascertain the daily routines of an innovative school which educationists contended was operating according to an open-area, nongraded philosophy. They stated that teachers made only occasional use of the attainable mechanical aides.

Goodlad, Klein, and Associates (1970) in their study to determine what was actually happening in elementary classrooms discovered still another way in which school systems adapted the use of instructional resources. They indicated that the priority given to such materials varied according to the grade level and the subject area. "The availability of art supplies declined as the grade level increased, . . . science materials were conspicuous by their absence, and there appeared to be a shortage of musical instruments" (p. 63).

When Smorodin (1984) studied the effects of different amounts of coordinator assistance on the implementation of a Consumer Education curriculum, she noticed that teachers adapted the resources intended for use with the innovation by using them in other subject areas. The results of Emrick, Peterson, and Agarwala-Rogers' study (1977) were consistent with Smorodin's findings. They indicated that teachers often substituted other learning resources in the place of those that were developed to be used in conjunction with a specific program.

Adaptations in the usage of textbooks and workbooks were described in several studies. Goodlad, Klein, and Associates (1970) reported that teachers selected textbooks and workbooks as a medium for instructional input more frequently than any other resource materials. Smith and Keith (1971) made a similar observation when studying the day-to-day functioning of the Kensington School which had been defined as being innovative. They found that teachers reverted to the use of textbooks even though the school philosophy advocated using a variety of other instructional resources. According to Huberman and Miles (1984), who did a thorough investigation of the implementation of several reading programs, teachers reinforced instruction with more workbook activities than were recommended by the program being implemented.

Assessment Changes

In the field of education the concept of assessment usually refers to either diagnostic or achievement testing. Research has shown that teachers have made adaptations in both of these areas.

The adaptation in relation to diagnostic testing that researchers reported as being most prevalent was a decrease in its suggested usage. Numerous studies documented that teachers did far less diagnostic testing and analysis of students' needs than were stipulated in the programs being implemented (Clinton, 1979; Evans & Scheffler, cited by Fullan & Pomfret, 1977; Firestone, 1979; Goodlad, Klein, & Associates, 1970; Huberman & Miles, 1984; Wirt, 1978). One study (Wirt) indicated that, to ensure such testing was completed, it was either done by a computerized service provided by the central office or assigned as an auxiliary service of the reading specialists.

Researchers have also uncovered several ways that teachers have adapted procedures proposed for the evaluation of student achievement. Hamilton's (1970) study on the implementation of a new science curriculum showed that many of the participating teachers used norm-referenced tests instead of criterion-referenced tests that were strongly recommended by the developers of the curriculum. Goodlad, Klein, and Associates (1970) found evidence to support Hamilton's findings. They noted that "tests being used in the schools were almost uniformly of the grade-norm variety" (p. 85) despite the importance attributed to determining a child's competence in a subject area through the use of criterion-referenced tests. A study by McCutcheon (1980) revealed that teachers sometimes changed the format of commercially produced tests in order that they would correspond to the format of the children's daily written work.

In their extensive study of the implementation of federally approved innovations, Huberman and Miles (1984) observed that at some sites in their study sample teachers increased the amount of achievement testing that was stipulated by the innovations being implemented, whereas at other sites teachers did not test as frequently as was proposed by the developers of the various innovations.

Reasons for Adaptations

In an attempt to assess the outcomes of a number of different change efforts, researchers have determined a variety of factors that have affected the implementation and continuation of innovations. Although the literature often presents these factors in relation to the fidelity of implementation, it is equally appropriate to define them as potential causes of adaptations, since failure to be faithful to the developers' intentions automatically implies adaptation or modification. For the purpose of this study, those factors which have been identified as positive determinants of implementation are treated as plausible reasons for adaptation. In view of the large number of such documented factors, the researcher grouped them into five broad categories to facilitate understanding of the distinguishing characteristics of each factor.

Teacher Characteristics

The findings of many studies related to educational change underscore the impact that various attributes of classroom teachers can have on the implementation of educational innovations. The attributes identified as being influential are essentially of two kinds: those that are of a strictly personal nature and those that are determined with respect to the educational innovation being implemented. Discussion of these attributes occurs in this order.

The frequently stated conjecture that teachers use educational innovations in relation to their classroom perspectives, which tend to be based on personal values and beliefs about students, learning, quality teaching, and classroom management, has received extensive support from studies that have examined and appraised educational change efforts (Boag, 1980; Connelly, Finegold, Wahlstrom, & Ben-Peretz, 1977; Crocker, 1984; Huberman & Crandall, 1982; Janesick, 1979; Leithwood, Ross, & Montgomery, 1982; Odynak, 1981; Olson, 1980; Regan & Leithwood, 1974; Scheinfeld & Messerschmidt, 1979; Smith & Keith, 1971; Tisher & Power, 1978). These studies showed that if teachers' beliefs were at variance with the goals or instructional approaches underlying an educational innovation, the intended consequences of the innovation were often blunted. In fact, after field-testing materials that embodied an enquiry method of instruction, Connelly et al. (p. 24) concluded that "when the philosophy of a teacher and that of a curriculum don't mesh, the teaching program is bound to fail." In the summary of her ethnographic study of a teacher's classroom perspective, Janesick (1979) contended that a teacher's classroom perspective was the curriculum.

Years of teaching experience have also been noted to have a significant influence on the implementation of educational innovations. An extensive study of federally funded programs revealed that the more experienced the teacher, the less likely was an innovation to achieve its intended goals (McLaughlin & Marsh, 1978).

Individuals with many years on the job were extremely reluctant about changing tried and proven practices.

The discovery that the number of years of teaching experience had negative effects on implementation has been elaborated upon by other studies that have provided possible reasons for its occurrence. In a case study of how eight teachers implemented an integrated science project, Olson (1980) found that the teachers used well-established patterns to translate some of the project elements into a workable teaching system. By finding familiar constructs within the science project, teachers reduced the ambiguity of the teaching situation that had been created as a result of the introduction of the innovation. Olson concluded that the designers of educational innovations must "realize that teachers might be happily wedded to a number of constructs which are too well adapted to their situations to be abandoned" (p. 7). Deal (1984) and Lortie (1975) concurred with Olson's conclusion. Their research showed that in many cases a teacher's attachment to a particular way of doing things acted as a powerful barrier to change. Teachers did not wish to give up practices that had proven to be successful. Deal explained that the teachers reacted in this manner because for most people change represents a loss and as such it often causes them to cling to their past for a sense of security.

In a study designed to identify the most salient influences on teachers' curriculum decision-making, the item on the questionnaire referring to teachers' past experiences (i.e., what they had found to work well with students) was ranked as the strongest influence

(Leithwood, Ross, & Montgomery, 1982). Interview data collected during the study served to confirm this finding.

When Kremer and Ben-Peretz (1980) investigated the possible effects of variables that lie within the teacher (i.e., seniority, knowledge, attitudes, dogmatism, and locus of control) upon the implementation of a process-oriented curriculum developed to improve listening skills, they found that seniority was a good predictor of high adherence to curriculum instructions and guidelines. They concluded that "the more senior the teachers are the less they tend to introduce changes into given materials" (p. 78). This result was consistent with the aforementioned finding which indicated that teachers with many years of experience frequently did not achieve the goals of a new innovation. On the basis of this information, Kremer and Ben-Peretz proposed that initiators of curricular innovations which require a fair amount of initiative may find it beneficial to begin implementation with teachers who have relatively limited seniority. In this same study, Kremer and Ben-Peretz found that dogmatism, a personality construct referring to "difficulty in changing attitudes and assimilating information as opposed to that already acquired" (p. 74), accounted for a large percentage of the variation in teaching behaviours.

Leithwood and MacDonald (1981) and Lortie (1975) discovered that a strong achievement need frequently motivated teachers' curriculum decisions in the classroom. In fact, teachers identified student demonstration of cognitive competence or the feeling that they had "reached" their students as being their primary reward in teaching. A major implication of this finding is that unless teachers perceive that an innovation will enhance student learning and thus ultimately satisfy a personal need to feel professionally useful, they may either decide not to implement the innovation or decide to adapt the innovation in a manner that will ensure that their students will be successful.

The Rand Study found that "teacher sense of efficacy - a belief that the teacher can help even the most difficult or unmotivated students (McLaughlin & Marsh, 1987, p. 85) was the teacher attribute most strongly correlated with effective change. According to Jackson (1968) and Lortie (1975), who conducted extensive interviews with teachers, this sense of security about professional competency was not a psychological state characteristic of the major portion of the teaching force. In view of this finding, it is not surprising that some individuals adapt innovations or are reluctant to embark upon their implementation.

A personal attribute of humans that has been shown to influence teachers' reactions to change is homeostasis--"the organic desire to maintain balance" (Watson, cited by Huberman, 1973, p. 46). After analyzing numerous studies on educational change, Fullan (1982) reported that teachers were not naturally complacent or against change per se but that they sometimes resented the number of changes with which they were constantly confronted. In order to achieve a stable working level, teachers often totally resisted a change effort or reverted to normal modes of behaviour after being sensitized to innovative practices.

Hughes and Keith (1980) established that teachers' perceptions of the attributes of a new science curriculum (i.e., relative advantage, compatibility, trialability, and observability) had strong positive effects on how they eventually used it in their classrooms. This finding gave support to Havelock's (1973) theory that the implementation of an innovation was facilitated if teachers felt: the innovation meshed with their existing beliefs and practices, the advantages of the innovation were superior to the advantages of the program or project it superseded, the innovation could be attempted on a small scale, and the opportunity would be provided to observe the innovation in use. The results of Hughes and Keith's study also concurred with the writings of Doyle and Ponder (1977) and Olson (1980) on the dissemination and implementation of educational innovations.

Research conducted by Lieberman (1982), Odynak (1981), and Olson (1980) revealed that teachers who lacked clarity about an innovation's underlying rationale and key components made minimal changes in their established practices during the intended implementation period. This idea was congruent with findings documented in the Rand Study. The Rand Study, however, provided additional insight into the influence of project clarity. According to McLaughlin and Marsh (1978), who summarized results of various phases of this study,

> conceptual clarity may be fostered--but cannot be assured by specific project-goal statements or by the use of packaged materials or by lectures from outside consultants. The conceptual clarity critical to project success and continuation must be achieved during the process of project implementation--it cannot be 'given' to staff at the outset. (p. 80)

Huberman and Crandall (1982) and Gross, Giacquinta, and Bernstein (1975) reported that the degree to which the designated users of an innovation possessed the skills and knowledge required to carry it out was positively related to how the innovation appeared in the reality of the classroom. Lieberman (1982) agreed with this finding but also pointed out that frequently the developers of an innovation underestimated the actual knowledge and skills required to make it work and consequently teachers were not provided with adequate preparation for the implementation of the innovation. According to Lieberman circumstances of this nature made adaptations unavoidable.

Student Characteristics

This category refers to student attributes, as perceived by teachers and researchers, which have been shown to influence the implementation of educational innovations. In an ethnographic study of a prescribed curriculum change, Odynak (1981) observed that the teacher adapted certain components of the curriculum that did not appear to be of particular interest to the students. Similar findings were reported by Jackson (1968) and Leithwood, Ross, and Montgomery (1982). They noted that teachers frequently based pedagogical decisions such as choice of curricular content or instructional approaches on student interest and enthusiasm. This finding was further supported by Tom (1973) who found that, when teachers were asked to select a new curriculum, perceived student interest was the major criterion that guided their selections.

Research projects designed to investigate different aspects of teacher planning have demonstrated that providing for students' social and personal needs was a primary concern for teachers (Jeffares, 1973;

Oberg, 1975; Pylypiw, 1974). An implication of this discovery is that teachers may adapt curricula to ensure such needs are met.

Many researchers have reported that students' needs and ability levels dictated how teachers used various educational innovations (Boag, 1980; McCutcheon, 1980; Odynak, 1981; Smith & Keith, 1971; Smorodin, 1984; Tisher & Power, 1978). In order to ensure that the level of difficulty of an innovation corresponded to students' ability levels, teachers were often noted to omit components of the innovation, use supplementary materials, or modify suggested goals, strategies, content, or activities. The results of a study which investigated the concerns of teachers in relation to centrally produced curriculum materials also emphasized the importance teachers attribute to students' ability levels when making curricular and instructional decisions. They revealed that teachers were extremely interested in whether or not such curriculum materials could be adapted for different ability levels (Ben-Peretz & Tamir, 1981).

Project Characteristics

Numerous studies pertaining to educational change have provided evidence to support the idea that certain attributes of an innovation influence its general acceptance and ultimately its implementation. The complexity of an innovation has frequently been referred to as "the difficulty and extent of change required of the individuals responsible for implementation" (Fullan, 1982, p. 58). Research projects designed to determine the role of complexity in the adoption and implementation phases of an innovation have produced contrasting results concerning the influence of this variable.

McLaughlin and Marsh (1978) and Berman and McLaughlin (1976) reported that the greater the amount of change proposed by an innovation or the more effort required of teachers in its implementation, the greater were the overall changes evidenced in teachers' behaviours, as well as the number of intended goals that were actually accomplished. These consequences were attributed to two factors. First, the researchers claimed that ambitious projects resulted in greater changes because more was being attempted. Second, they indicated that major changes tended to appeal to teachers' sense of professionalism and offered a type of intrinsic incentive. The Rand Study revealed that "a primary motivation for teachers to take on extra work and other personal costs of attempting change [was] the belief that they [would] become better teachers and their students [would] benefit" (McLaughlin & Marsh, 1978, p. 75).

On the other hand, in an extensive review of implementation studies Fullan and Pomfret (1977) discovered that teachers' perceptions of the complexity of a change influenced the degree to which they ultimately implemented the change proposal. If an innovation was perceived as being very complex, teachers generally reacted negatively towards its adoption and implementation. A higher frequency of success in the implementation of such complex efforts was observed to occur if they were differentiated into an array of specific components (Fullan, 1982). Fullan and Pomfret's review of research also revealed that innovations which demanded major changes in teachers' behaviours often required special assistance if they were to be implemented satisfactorily.

The clarity of the terms used to describe the essential features of an innovation has also been shown to affect the degree to which an officially-adopted innovation is actually implemented. Olson (1980) and Firestone (1979) found that lack of clarity in critical terms or suggested strategies related to an innovation and vague descriptions of the new roles designated for teachers constituted a major barrier to the implementation of an innovation. Teachers tended to adapt key aspects of an innovation because they were not certain about what they should do differently. Similar findings were documented by Crowther (1972), Donnelly (1979), Fullan (1982), Fullan and Pomfret (1977), Gross, Giacquinta, and Bernstein (1975), Lieberman (1982), McLaughlin and Marsh (1978), and Simms (1978).

Implementation Strategies

A number of researchers have investigated the influence of the employment of different strategies during the adoption and the implementation phases of a change process on the eventual usage of the innovation in question. Although the results of such research have not proven one particular approach to be most effective, they have revealed pertinent information regarding the possible consequences of using particular strategies to initiate and sustain the implementation of an innovation.

After analyzing numerous attempts to implement educational changes, Gross, Giacquinta, and Bernstein (1975) and Havelock (1973) concluded that teachers were more receptive to change efforts if they were involved in determining the need for the change and in deciding on the most appropriate innovation to address that need. Goldsberry and Harvey (1985, p. 38) found that "when individuals pursued goals which [were] personally selected as relevant to and important for their work, both their willingness to devote their energies and the likelihood of goal attainment were enhanced."

The results of several other studies showed that curricular innovations which were mandated by the district and were planned without giving teachers the opportunity to provide input were less successful (Loucks & Melle, 1980; McKinney & Westbury, 1975) than the ones which were planned collaboratively throughout all phases of the change process (McLaughlin & Marsh, 1978).

Huberman and Miles (1984) and Orgren (1977) reported slightly different findings in relation to approaches used to put an innovation into practice. In a study designed to determine if mandated adoption of a student-inquiry-oriented curriculum ensured continued change in teaching behaviour, Orgren found that teachers who were mandated to use a new science curriculum changed their teaching behaviours as advocated by the innovation to a greater degree than did individuals who had volunteered to use the curriculum. Even after four years of experience with the curriculum the teachers who had initially been given no choice about its implementation continued to employ the behaviours designed by the developers. Huberman and Miled credited the successful implementation of several projects to the fact that fidelity had been enforced by administrators at the involved sites. They stressed, however, that the strong and continuous pressure to implement innovations faithfully was also accompanied by different forms of assistance for the teachers.

Research has provided evidence that in-service training can positively influence the degree of implementation of an educational innovation (Crowther, 1972; Fullan, 1982; Fullan & Pomfret, 1977; McLaughlin & Marsh, 1978; Wint & Kennedy, 1977). The strategies that teachers identified as being most helpful included: staff development activities arranged at individual schools; follow-up assistance to skill-training sessions that were offered as a one-time activity; observations of similar projects in other classrooms, schools, or districts; and workshops operated by local personnel instead of outside experts. Recent work by Joyce and Showers (1980) has shown that if an innovation is to be fully implemented and teachers are to make lasting behavioural changes, teachers must receive coaching. This component of in-service involves teachers visiting their colleagues' classrooms for the purpose of observing the actual usage of an educational innovation. After each visitation the involved teachers arrange a time to get together to discuss various aspects of the lesson. The intent of this process is to help and give support to teachers as they attempt to make a certain change part of their daily routine.

Many studies have revealed how the availability of resources significantly impacted the degree to which an innovation was implemented. At research sites where teachers were not provided with the resources that had been prescribed to facilitate the implementation of the proposed change, they compensated by adapting various aspects of the innovation (Gross, Giacquinta, & Bernstein, 1975; Hamilton, 1975; Lieberman, 1982; McCutcheon, 1980; McKinney & Westbury, 1975; Smith & Keith, 1971). In their review of implementation studies Fullan and Pomfret (1977) discovered that the inadequacy of the resources prescribed by the developers of an innovation was frequently identified by teachers as a barrier to change. They also reported that many teachers mentioned the limited availability of time to become familiarized with resources as a deterrent during implementation.

Organizational Characteristics

A number of elements within a school's organizational make-up have been found to play critical roles in whether or how the implementation of innovations occurred.

Studies designed to investigate educational changes have shown that teachers were much more likely to make and maintain essential changes required by an innovation if their principals offered them sustained support and assistance, provided them with adequate resources, recognized their individual worth, and encouraged their contributions during all phases of the change process (Berman & McLaughlin, 1976; Crowther, 1972; Emrick, Peterson, & Agarwala-Rogers, 1977; Fullan, 1982; Fullan, 1985; Goodlad, 1975; Hall, Hord, & Griffin, 1980; Huberman & Crandall, 1982; Loucks & Melle, 1980; McLaughlin & Marsh, 1978). According to Sarason (1982, p. 77)

> the principal's unique contribution to implementation lies not in "how to do it" advice better offered by project directors, but in giving moral support to the staff and in creating an organizational climate that gives the project "legitimacy" . . . All told, the principal amply merits the title of "gatekeeper of change".

In schools involved with a change effort, where the principals showed minimal interest in the innovations being attempted or failed to supply direct assistance to the teachers, the extent to which actual use of an innovation corresponded to its intended use was minimal (Firestone, 1979; Huberman & Miles, 1984; Smith & Keith, 1971). Research has also revealed the importance of district administrative support, in either a direct or indirect form, to the success of an innovation (Fullan, 1985; Huberman & Crandall, 1982).

Another organizational factor that has been proven to stimulate professional growth in teachers and to facilitate the implementation of educational innovations is a school climate characterized by open communication, collegiality, and trust (Berman & McLaughlin, 1976; Fullan, 1985; Fullan & Pomfret, 1977; House, 1976; Leithwood & Montgomery, 1982; Levine, 1985). Davis (1978) and Lortie (1975) reported that teachers identified their colleagues as their most effective source of help. This idea was supported by data McCutcheon (1980) collected during her study of how teachers plan. She discovered that teachers desired more time with their colleagues to discuss and deliberate on problems that developed during the attempted implementation of new curricula.

Several studies have reported that scheduling procedures acted as a hindrance to the implementation of different innovations. In a district attempting to implement an individualized approach to education, Firestone (1979) observed that the effectiveness and amount of teacher diagnosis were limited by multi-class scheduling. This teaching arrangement did not provide teachers with sufficient time to really get to know each student and individualize his or her program.

When examining two schools' responses to the adoption of an integrated science curriculum, Hamilton (1975) discovered that some teachers adapted the curriculum because they were scheduled with less teaching time for science than other teachers using the same curriculum. Similar scheduling constraints were identified by Gross, Giacquinta, and Bernstein (1975), Lieberman (1982), McCutcheon (1980), and Wint and Kennedy (1977).

Still another organizational circumstance that has been shown to influence the implementation of an innovation is class size. Both McCutcheon (1980) and McKinney and Westbury (1975) documented adaptations which teachers made in innovations because of high student-teacher ratios.

Research has also revealed that system-wide testing programs and the importance attached to raising achievement scores, particularly in the areas of math and language arts, have had a bearing on the fidelity with which authority-adopted innovations have been implemented. According to Boag (1980), Lieberman (1982), Odynak (1981), and McCutcheon (1980) these factors caused teachers to make changes in the planned uses of innovations.

The factor most frequently identified by teachers as an obstacle to the implementation of an innovation was insufficient time in their schedules to adequately familiarize themselves with key features of the innovation and to do the additional planning that was generally required (Firestone, 1979; Goodlad, Klein, & Associates, 1970; Hamilton, 1975; Huberman & Crandall, 1984; Kimpston, 1985; Lieberman, 1982; Lortie, 1975; Smith & Keith, 1971; Smorodin, 1984; Wint & Kennedy, 1977; Wirt, 1978). Sarason (1982) stresses that successful educational changes require that adequate time be provided for actual implementation.

Relevance of the Literature Review

This review of literature and research related to educational change has revealed that even though teachers have been encouraged to implement innovations according to their developers' intents, they have frequently adapted innovations to fit the realities of their personal teaching situations. This general tendency during implementation has generated many questions about adaptations. Is it possible for teachers to replicate innovations developed elsewhere? Must adaptation occur for implementation to succeed? Are certain kinds of adaptations more acceptable than others? Because of the dilemma that has developed around the replication/adaptation issue, there is a need for further research which focuses on kinds of adaptations teachers make in innovations.

This literature review has also shown that a teacher's sense of comfort with the teaching of a subject area has not been investigated as a potential determinant of the implementation of an educational innovation. Considering that it is unlikely that teachers, particularly those at the elementary level, feel equally comfortable with each of the many subjects they may be required to teach, an exploratory study of this concept in relation to implementation gives promise of yielding important findings. The present study was designed to address both of the aforementioned topics which were revealed as needing further research.

CHAPTER III

THE DESIGN OF THE STUDY

This chapter describes the research design and the development of the measuring instruments. The pilot study, the selection and description of the sample, as well as the methods employed to collect and analyze the data are reported.

Methodology

The implementation of educational innovations has been studied by a number of researchers. An extensive literature review of such studies revealed, however, that many questions still remain unanswered about how teachers adapt innovations. The literature also showed that there is an absence of information regarding the possible influence of a teacher's sense of comfort with a subject area on the implementation phase of the change process. Because a teacher's "ultimate control over curriculum at [the] point of implementation is a fact" (Zais, 1976, p. 477), an exploratory study designed to investigate possible relationships between teachers' sense of comfort with the teaching of language arts and the kinds of adaptations they make in a new curriculum in that subject area gave promise of yielding important findings. Although a language arts curriculum served as a frame of reference for the study, the actual focus of the study was on kinds of curricular adaptations rather than the specific subject of language arts. In order to generate data which would further our understanding of this topic, a structured interview was selected as the principal method of investigation. Questionnaires were then developed from information gained through the interviews for the purposes of validating and comparing interview responses.

The interview was chosen as the chief data source in this study for several reasons. Due to the personal nature of the data to be collected during the research, the interview was judged to be the most appropriate technique for accomplishing this purpose. It is a scientifically respectable and expedient method of achieving a level of professional intimacy with persons with whom such intimacy would not ordinarily be available. Fox (1969, p. 525) states that "whenever we wish to obtain some information we believe a person has, or to learn his opinion on a specific issue, the best way to find out is to ask him a direct question."

The literature on research methods in education also tends to support the use of the interview "as an explanatory device to help identify variables and relationships" (Cohen & Manion, 1985, p. 293) when there is limited information available on the phenomenon under investigation (Cohen & Manion, 1985; Galfo, 1983; Good, 1972). It has been noted that data are frequently discovered during the interview which may serve as the source of hypotheses which can later be formally tested.

Finally, the interview was selected because it provides a systematic and controlled approach of gaining personal information from a number of teachers; systematic in that the development of the interview schedule and the conducting of the interview proceed in an orderly manner and controlled in that only specific items are discussed. These particular aspects of the interview allow for classification and comparisons of the data elicited from various respondents.

Although there appeared to be certain advantages to be gained from the use of the interview in this study, the researcher was also cognizant of its limitations as a research tool (Borg & Gall, 1983; Mouly, 1978). The fact that respondents may express ideas they feel will please or impress the interviewer, that the interactive forces which occur between the researcher and the respondent may alter the nature of the responses, and that the wording or selection of questions can bias data were carefully considered when developing the interview schedule and conducting the interview.

The literature on research design identifies four general kinds of interviews: the structured interview, the unstructured interview, the non-directive interview, and the focused interview (Cohen & Manion, 1985; Good, 1972).

The structured interview is one in which the interviewer must adhere strictly to the sequence and the wording of the interview schedule that is organized in advance. If some leeway is granted, it too must be specified prior to the interview. The unstructured interview provides for greater flexibility and freedom. Although the interviewer may work from an interview schedule, one is not restricted by the wording, content, or order of the questions. It is possible to ask additional questions and move off in directions which show promise of providing valuable information. During the non-directive interview respondents are encouraged to talk about the subject being researched as fully and spontaneously as they choose or are able. The interviewer's role tends to be limited to probing for clarity on doubtful points. In a focused interview the course of the interview is also guided primarily by the respondent. It differs from the non-directive interview, however, in that the interviewer is aware of various situations experienced by the respondent and thus exhibits more control on the discussion.

In view of the purpose underlying this study it was decided that the format of the structured interview was the most suitable kind of interview for gathering the related data. At the same time, however, it was determined to incorporate a degree of flexibility when warranted by particular circumstances or responses.

Development of the Measuring Instruments

The instruments used to conduct the research included a sense of comfort survey, an interview schedule, and questionnaires. The development of each of these instruments evolved through various stages which are described in detail on the following pages.

The Sense of Comfort Survey

The sense of comfort survey was designed to determine teachers' sense of comfort with the teaching of language arts.

Stage One. The initial stage of development involved asking five graduate students, all of whom were elementary school teachers, to respond to the following question. "Are there differences in the sense of comfort that you feel with the various subjects taught at the elementary level?" No attempt was made to focus on a particular subject as the researcher did not wish to lead the teachers' responses. Additional questions by the researcher were based solely on replies given by the teachers. For example, if a teacher indicated that he or she felt more comfortable with the teaching of math than science, the researcher would ask if there was a reason for this difference in sense of comfort. The purpose of these preliminary discussions was to ascertain whether teachers felt equally comfortable with the teaching of different subjects and how easily they could talk about this topic.

From the discussions it was apparent that teachers did indeed experience differences in their sense of comfort with the subjects taught at the elementary school level. Although two teachers had some difficulty identifying why they felt more comfortable with some subjects than others, the remaining individuals appeared to have no problems discussing the topic.

Stage Two. Following the preliminary discussions, the researcher designed a sense of comfort survey. It consisted of a five-point continuum ranging from "very comfortable" to "not comfortable" and 10 cards on which were written the following elementary subjects: art, computer, French, health, language arts, math, music, phys. ed., science, and social studies. The intent of the survey was to have a teacher place the given subjects on the continuum according to his or her sense of comfort with each of them. The survey was tried with five graduate students, all of whom were elementary school teachers, and the thesis supervisor. Upon completion of the task, the participants were asked to explain what contributed to their sense of comfort with several subjects that had been placed on different points on the continuum. At the conclusion of the session an opportunity was provided for the participants to comment on the general difficulty of the task.

Stage Three. On the basis of the experiences described previously, revisions were made in the sense of comfort survey in preparation for its use in the pilot study. The terms "very comfortable" and "not comfortable" were changed to "most comfortable" and "least comfortable," as the majority of the participants indicated that they felt there was a very negative connotation associated with "not comfortable." In addition, the subjects computer and French were eliminated from the survey because the majority of the teachers consistently placed them on the "not comfortable" point on the continuum due to the fact that they were subjects which they had never taught during their career. It was also mentioned by several teachers that the placement of these two subjects tended to force them to put other subjects further towards "very comfortable" than they would have done had the two subjects not been given as part of the task. On the basis of this information, it was decided that using the eight subjects commonly listed in Elementary Curriculum Guides would prehaps give the most accurate profile of a teacher's sense of comfort with the different subjects.

The Interview Schedule

The interview schedule was designed to gather data that would help to reveal the factors which contributed to a teachers' sense of comfort with the teaching of language arts; to identify concerns teachers had prior to and during the implementation of the Expressways Program; and to clarify the kinds of adaptations that were being made in that curriculum and teachers' reasons for making them. Consequently, the questions were organized into major sections to facilitate the achievement of these objectives (Appendix B). In formulating the questions for the interview, the researcher also incorporated the following guidelines advised in the literature on educational research (Fowler, 1984; Good, 1972).

1. The questions must be carefully prepared so as to ensure they have the same meaning for all the participants in the study.

2. The selection of the vocabulary, uniform wording, and the sequencing of questions must be given careful consideration in order to avoid leading questions or eliciting distorted responses.

3. Specific rather than general questions tend to lead to more valid answers.

Stage One. The questions comprising the first two sections of the interview schedule focused on teachers' sense of comfort with language arts and their implementation concerns. The initial draft of these questions was guided by the related research questions and knowledge derived from designing the sense of comfort survey.

The questions for the final section of the interview schedule pertaining to adaptations made in the Expressways Program required greater preliminary work before they could be completed due to the extensive scope of the curriculum. Although the researcher had taught the Expressways Program for one year, it was essential to gain a more thorough knowledge of the curriculum. This was accomplished in two ways. An in-depth study was made of the philosophy underlying the Expressways Program, all available scope and sequence charts, the core and supplementary materials for grades one to five, and in-service handouts provided by the authors of the curriculum. In addition, the researcher arranged to talk with two teachers who had piloted the Program. These individuals were made aware of the purpose of the study and asked what they considered were the key aspects of the Expressways Program. The questions related to adaptations were formulated on the basis of the information gained from all of the aforementioned sources.

Stage Two. The thesis supervisor was asked to examine the interview schedule for clarity in wording, leading questions, order of items, and appropriateness of questions to the study. Further to a follow-up discussion, four modifications were made in the interview schedule.

1. Questions pertaining to implementation concerns were revised to accommodate possible **yes** or **no** responses.

2. The wording of some of the questions related to adaptations was changed in an effort to remove any possible evaluative tone about a teacher's performance in relation to particular kinds of adaptations. A phrase such as "the Program stresses" was changed to read "the Program asks." A sentence similar to "Do you follow this

directive on a regular basis?" was replaced with something like "Do you feel this directive was a good idea?"

3. It was decided to begin the final section of the interview schedule with an open question to elicit kinds of adaptations teachers made in the Expressways Program before asking specific questions about key aspects of the curriculum. This adjustment was also incorporated in the subsections related to adaptations.

4. Some questions on adaptations were reworded to ensure that they focused on only one aspect of the Expressways Program. As a result of these adjustments minor modifications were made in the categorization of questions within the subsections of the questions pertaining to adaptations.

Stage Three. Prior to the pilot test, the revised interview schedule was discussed with a consultant who had worked on the development of the Expressways Program. The purpose of this meeting was to obtain the consultant's opinion on whether the interview schedule covered the key aspects of the curriculum. Two vice-principals in schools that were implementing the Expressways Program were asked to read the interview schedule to assess its clarity. In all cases, the individuals considered that the revised schedule met the criteria upon which they had been asked to judge it.

Questionnaires

Individual questionnaires were developed to correspond to the major categories of information gained through the interviews. In order to facilitate this process each interview was tape recorded and later transcribed verbatim. The purpose of the questionnaires was to determine:

1. the relative importance of specific factors contributing to teachers' sense of comfort with language arts;

2. the relative importance of implementation concerns existing both prior to and during the implementation of the Expressways Program;

3. the relative importance of reasons which were given for adapting the Expressways Program; and

4. the frequency with which teachers made particular adaptations in the Expressways Program.

Because the specific items on the questionnaires were based on the teachers' interview responses, the content of the questionnaires used in the actual study differed somewhat from the content of the questionnaires used in the pilot study. All the questionnaires, however, were developed in the same manner. The stages involved in this process were: establishing the categories of items, sorting the data, and checking the organization. Each stage is described on the following pages.

Stage One. After the interviews were transcribed, the researcher went through each of the interview transcripts and extracted the data which pertained to the topic of the questionnaire being developed. Although the data were not copied verbatim, only unrelated phrases were omitted. For example, in reply to a question dealing with sense of comfort one teacher said, "Probably the greatest reason that I feel comfortable with language arts is because I've taken a lot of courses at the university level dealing with language arts." This statement was summarized as, "I've taken a lot of courses at the university level dealing with language arts." Teachers' responses to questions which specifically addressed the topic of the questionnaire contained the major portion of the essential information. To ensure that no data pertinent to the development of a questionnaire were overlooked, however, the researcher read the remaining sections of the interview transcripts. This was done in the event that a teacher provided details in a particular response which pertained to another question on the interview schedule.

Once the data were compiled from which the items for the questionnaire would emerge, the researcher began to establish the major categories. This initial categorization of the data was guided by the process outlined by Spradley (1980) for making a domain analysis. Spradley defines a domain as being a category "made up of three basic elements: cover term, included terms, and semantic relationship" (p. 89). The cover term is essentially the name for the category, while the included terms are the names of smaller categories within the same domain. The semantic relationship explains the way the cover term and the included terms are related and helps one to determine if an item or statement belongs in a particular category. On the basis of these criteria, the researcher examined interview responses looking for various domains that could be used in the development of the questionnaires.

Examples of particular domains discovered for use in the sense of comfort questionnaire illustrate this categorization process. Educational background emerged from teachers' responses as a cover term or a major category. Other phrases such as, "a lot of courses in language arts," "many English courses," "studied the reading process," and "a wonderful writing course" were also found within teachers' statements. The researcher classified these as included terms. The relationship between these terms was defined as "is a part of." In other words, courses in language arts are a part of one's educational background. In addition, a writing course is also part of one's educational background.

Teaching experience was another cover term which was discovered in the data pertaining to sense of comfort. Some included terms which were mentioned by teachers were: "worked with pilot programs," "taught four different language arts curricula," "watched how kids learn," "picked up skills while teaching," and "taught different grade levels." Once again the semantic relationship "is a part of" was used to describe the relationship between the cover term and the included terms. Consequently, the categorization was saying that having taught different grade levels or having worked with pilot programs is a part of one's teaching experience.

The process of searching for domains embedded in the data continued until the researcher felt that all cover terms or major categories essential to the development of a questionnaire had been identified. This categorization process required a certain degree of subjectivity on the part of the researcher. Therefore, it was decided to recategorize the data for each questionnaire approximately one week later to serve as a precaution against this problem. In the majority of cases, the major categories were extremely consistent. Any differences which appeared tended to occur in the included terms rather than the cover terms or major categories.

Stage Two. After the major categories or items for a questionnaire were established, the researcher did another sorting of the data. This step was included to ensure that the different ideas voiced by teachers were all represented in the defined categories. This process was based on an approach used by Nolan (1978) to organize introspective comments made by students discussing their writing process. It involved systematically separating responses into syntactic segments and then labelling the segments according to the intent of the speaker.

In accordance with this schema, the researcher went back to the original interview transcripts and divided all responses pertaining to the topic of a questionnaire into syntactic segments. The following example related to sense of comfort illustrates this process. Slashes separate the segments. "Well, I've taken quite a few courses on the new approach to reading / and I field tested the Unicorn Program which was language based."

Once the segmentation was completed, the researcher labelled the segments according to one of the categories established during the domain analysis. In labelling the segments it was necessary to take into consideration the context of the segment. The segments stated previously were labelled as follows. "Well, I've taken quite a few courses on the new approach to reading" was identified as educational background. "I field tested the Unicorn Program which was language based" was labelled as teaching experience.

If when labelling the different segments of the responses the researcher came across a particular idea that did not fit within one of the previously defined categories, a new category was developed. After all the segments were labelled and the categories were confirmed, the items for the questionnaire were written. This involved taking each major category and elaborating on it briefly. For example, on a questionnaire for sense of comfort, the category educational background read in the following manner.

_____ Educational background (e.g., courses taken at college or university in the area of language arts, English, or the teaching of reading)

Included terms were frequently cited to clarify the meaning of the item. The questionnaires related to sense of comfort, implementation concerns, and reasons for adaptations required teachers to rank the items in the order of their personal importance or influence. A Likert scale was designed to determine the frequency with which teachers made adaptations in the Expressways Program. It provided five possible responses: almost always, frequently, occasionally, almost never, and not applicable.

Stage Three. The thesis supervisor was asked to examine the completed questionnaires for clarity in the wording, both in the directions and the items; distinguishable differences among the items; and clarity of specific terminology. Directions or particular items were refined on the basis of her suggestions. The researcher then asked two colleagues who were familiar with the area of knowledge being studied to preview the questionnaires. They were asked to judge how effective they felt the instruments would be in obtaining the desired information.

Population and Sample

Since the major purpose of the study was to explore the kinds of concerns teachers experience both prior to and during the implementation of a new curriculum and the ways they adapt the curriculum to fit their particular situation, it was essential to have a curriculum to use as a frame of reference. The Expressways Language Arts Program was chosen as the vehicle for collecting such data. This decision was influenced by several factors.

At the time of the study, this curriculum was being implemented by many elementary classroom teachers throughout New Brunswick. The researcher believed that it would be more advantageous to use a curriculum that teachers had worked with regularly for at least a year than to design a unit and ask a group of teachers to implement it for a specific period of time. The Expressways Program also represented a major change for teachers in the language arts curriculum in terms of philosophy, approach, and content.

The population from which the sample was drawn consisted of elementary classroom teachers employed in four rural school districts in western New Brunswick. These districts were selected because the implementation of the Expressways Program tended to be in its early stages there. The majority of the teachers had used the curriculum for either one or two years. According to Fullan (1982, p. 39), implementation usually refers to the first two or three years of attempting to put an idea into practice. The researcher judged that this was sufficient time for teachers to have become familiar with the Expressways Program and yet a short enough time period for them to recall any implementation concerns as well as adaptations they had made in the curriculum.

Once the sense of comfort survey was administered to the elementary teachers in the four districts, the study sample was selected on the basis of differences in individuals' sense of comfort with the teaching of language arts. It was composed of 36 teachers who taught grade one, two, three, four, or five students. Further information on the actual sense of comfort of those teachers in the study sample and the means by which they were selected is provided in a later section.

The Pilot Study

The pilot study was conducted in three phases during the spring of 1986. Each phase involved the testing of a different measurement instrument planned to be used to generate data for the study. Since the content of the questionnaires was contingent upon the interview responses, the pilot testing of these instruments was confined to the questionnaires developed on the basis of the information collected during the pilot test interviews. The purposes underlying the pilot study were:

1. to determine whether the developed instruments were valid for the purpose of gathering data to help answer the research questions;

2. to identify and overcome any problems related to interpretation or clarity of wording in the measuring instruments;

3. to develop the researcher's interviewing skills and experience in conducting the other data gathering procedures; and

4. to establish the amount of time required to collect the data.

Phase One

The sense of comfort survey was administered to five elementary school teachers currently employed in the city of Edmonton, as well as five graduate students at the University of Alberta who also taught at this level. The researcher did this phase of the pilot study in Edmonton to avoid mixing this pilot group with the final study group. Each session was conducted in a private area and a short interview was held with each teacher after the survey was completed. The purpose of the interview was to determine the factors which contributed to teachers' sense of comfort with the teaching of language arts and to discover any problems the teachers had with the task.

The results of this phase of the pilot study indicated that the sense of comfort survey was a suitable instrument for determining teachers' sense of comfort with the different elementary subjects. None of the teachers experienced apparent difficulty arranging the subjects and the majority of them could readily identify the factors which contributed to their sense of comfort with the teaching of language arts as well as other subjects.

Teachers' placements of the subjects on the continuum revealed that there was not a wide range in teachers' sense of comfort with the teaching of language arts. This finding suggested that it might not be possible to do comparisons among groups of teachers who experienced large differences in their sense of comfort with language arts. It was decided, however, to proceed with the study and to use a smaller group for the lower sense of comfort if the situation warranted.

Phase Two

The second phase of the pilot study occurred after the elementary teachers in four school districts in New Brunswick had completed the sense of comfort survey and the three groups who would form the actual study sample had been chosen. Six teachers were randomly selected from the remaining members of the population and asked to participate in the pilot study of the interview schedule. When contacted, all six individuals agreed to take part in the study. These teachers had all taught the Expressways Program for at least one year and were currently teaching at a variety of levels ranging from grade one to grade five.

All but one of the teachers preferred to do the interview in the evening at their homes. The other individual chose to have the researcher conduct the interview in her classroom after regular school hours. In all cases, however, the interview was done in a quiet area without interruptions. Each of the participants agreed to have the sessions recorded on a small cassette recorder. This allowed the researcher to later transcribe the interviews and to analyze her interaction with the individual teachers.

At the conclusion of the interview teachers were asked to comment on the general clarity of the questions, the length of the interview, and whether they would have preferred to have had the interview schedule in advance. The teachers were also given the opportunity to indicate whether or not they felt the questions pertaining to curricular adaptations adequately covered the key aspects of the Expressways Program.

As a result of this phase of the pilot study a number of minor changes were made in the interview schedule.

1. It was decided to eliminate several questions in the initial part of the interview schedule which asked teachers whether specific factors influenced their sense of comfort with the teaching of language arts. This decision was based on the fact that several of the teachers had indicated that they felt these were particularly leading questions.

2. Questions were included in the interview schedule which addressed a teacher's sense of comfort with subjects other than language arts. The researcher felt that this would make the initial part of the interview session a more positive experience for the teacher who professed being less comfortable with the teaching of language arts than several other subjects. Also, since many of the teachers in the pilot study had referred to their sense of comfort with other subjects when discussing language arts, it appeared that such questions might provide interesting information.

3. Two questions pertaining to optional experiences provided in the Expressways Program were combined as teachers found them to be redundant.

Prior to the pilot study the researcher had been concerned about the length of the interview schedule. The reaction of the participants to this matter, however, indicated that a modification of this nature was certainly unnecessary. The teachers were very willing to discuss how they had implemented the Expressways Program, and in several cases individuals continued to discuss aspects of the curriculum once the interview was completed. It was also the consensus of the group that they did not wish to have the interview schedule in advance. They felt it was sufficient to be made aware of the major topics that would be discussed.

Phase Three

The nature of the research required that the same teachers who had participated in phase two of the pilot study be involved in the final phase of the pilot study. Each of the teachers was sent a summary of her interview and questionnaires which focused on the following topics: factors contributing to sense of comfort with language arts, implementation concerns, curricular adaptations, and reasons for adaptations.

A week after the delivery of these materials, the researcher arranged to meet with each teacher to discuss the value of the interview summary and possible difficulties encountered when completing the questionnaires. All meetings were held at the teachers' homes in areas which provided for uninterrupted sessions. The discussions were not taped; however, the researcher made notes on the various problems and recommendations voiced by teachers. On the basis of the information gained through these meetings it was determined to incorporate the following changes in the actual study.

1. Instead of sending teachers a summary of their interviews, it was decided to send a copy of the interview transcript. Since the summary was simply a condensed version of the interview, its actual value did not seem to warrant the amount of time required for its development. Furthermore, all the teachers in the pilot study asked to read their interviews even though they had a summary of them.

2. The directions on the questionnaires asking teachers to rank all stated items were modified to read "rank a minimum of one and a maximum of five items." This decision was based on the fact that during the pilot study teachers found it difficult to accurately rank order more than five items.

3. An item was added to the questionnaires on implementation concerns experienced prior to and during the implementation of the Expressways Program. It gave teachers the option of indicating that the implementation of the new curriculum caused them no concerns. This was done to ensure that teachers would not feel pressed to rank a concern if it did not really exist.

4. Items on the questionnaire related to curricular adaptations were categorized to enhance understanding of the described adaptations and consequently facilitate completion of the questionnaire. Teachers felt that this format would be helpful because of the numerous items on this particular questionnaire.

Data Collection Procedures

The data for this study were collected in stages using different measurement instruments. The following sections provide a detailed description of the procedures which were employed at each stage of the investigation.

The Sense of Comfort Survey

A letter outlining the nature and purpose of the study was sent to the superintendents of the four school districts requesting permission to conduct the research in the elementary schools under their jurisdiction. Once approval was granted to begin the study, the researcher contacted the principals of all the elementary schools and arranged to meet with each of the principals individually. The purpose of these meetings was to explain what the study entailed and to set up a time when the researcher could speak with the different staffs to administer the sense of comfort survey. In each case, the principals were very obliging and promptly made the required arrangements. Principals were also asked not to discuss the study with their staffs in advance of the staff meeting. This precaution was taken to ensure that all teachers received the same information about the research.

The meetings with the different staffs followed the same format. Upon being introduced, the researcher gave a brief description of the study, making certain not to mention the specific subject area or curriculum on which the research would focus. This was done in the event that such information might influence teachers' responses on the sense of comfort survey. The degree of teacher involvement required at each stage of the investigation was described and assurance was given that initial participation in the sense of comfort survey did not commit one to later involvement in the study.

The researcher then demonstrated what the survey entailed by using a chart size profile of her own sense of comfort with the teaching of the eight different subjects. Examples of profiles completed by several teachers who had been in the pilot study were also displayed to establish the personal variety in responses. Stress was placed on the fact that there was no one profile that was more acceptable than another.

At this time, each teacher was given an envelope containing a sense of comfort continuum and eight subject cards and asked to arrange the subjects according to his or her sense of comfort with each of them. When teachers completed the task, they received a form on which to record the information (see Appendix A).

The sense of comfort survey was administered to 148 elementary classroom teachers (grades one to five) in 17 different schools. The overall response to the survey and the purpose of the research was very positive. There were three teachers, however, who did not wish to become involved even at this early stage of the study. These individuals indicated that since they would not be interested in participating in the remainder of the study at this busy time of the school year, should their name be selected, they saw no value in completing the initial survey.

Selection of the Sample

Although 148 teachers completed the sense of comfort survey, only 105 were used to formulate the group from which to select the study sample. This was due to the fact that some teachers in different schools had not yet begun to implement the Expressways Program. As a result, their names were excluded from the lists before the groups for the study sample were drawn.

As shown in Table 1, the majority of the teachers who taught the Expressways Program placed language arts toward the most comfortable point on the continuum. Consequently, a group for the study sample could not be chosen from the least comfortable end of the continuum as had been hoped.

Alphabetical lists were compiled of the teachers (76) who indicated they felt most comfortable with the teaching of language arts, as well as those (23) who placed language arts on the second point on the continuum. Using a table of random numbers, two groups of 15 teachers were selected. Five alternates for each group were also drawn at this time to replace any individuals who might not wish to participate. A third group was formed to include the six teachers who professed being less comfortable with the teaching of language arts. The researcher felt these individuals would add a valuable perspective to the study even though they were fewer in number and thus could not be randomly selected. The groups are referred to as group one, group two, and group three throughout the remainder of the thesis with the number depicting the point on the continuum from which the group was selected. It should be noted, however, that the one

TABLE 1

EXPRESSWAYS USERS' SENSE OF COMFORT WITH THE TEACHING OF LANGUAGE ARTS

n=105

MOST COMFORTABLE				LEAST COMFORTABLE
Frequency of Responses	Frequency of Responses	Frequency of Responses	Frequency of Responses	Frequency of Responses
76 (72%)	23 (22%)	5 (5%)	1 (1%)	0 (0%)

teacher who had placed language arts on the fourth point on the continuum was included with the teachers in group three.

Because the survey results necessitated selecting the groups in the study sample from consecutive points on the sense of comfort continuum, it was decided to include a question on the interview schedule to help establish the differences among teachers' professed sense of comfort with language arts. This question read as follows:

> Do you feel comfortable enough with the teaching of language arts that you feel you could teach the subject without a prescribed curriculum such as the Expressways Program?

A categorization of the responses to this question confirmed teachers' self-designations regarding their sense of comfort with the subject. Although there was not an exact correspondence between the two sources of data, the interview responses revealed that teachers' sense of comfort did indeed differ. As shown in Table 2, the teachers who indicated being the most comfortable with language arts tended to be more eager to teach it without a prescribed curriculum than were the teachers in the other groups.

Most individuals who were described as being eager to teach language arts without a prescribed curriculum prefaced their interview responses with phrases such as: "That has been my dream . . .," "I would love it . . .," or "I feel I could, I really do . . . I don't mean to sound like I am bragging because I'm not." The following quotes are illustrative of statements made by teachers who were considered as being a little hesitant about the decision. "I think that probably I could, now that I have taught language arts for a

TABLE 2

CATEGORIZATION OF RESPONSES RELATED TO WANTING OR NEEDING A PRESCRIBED CURRICULUM

n=36

CATEGORY #1			**CATEGORY #2**			**CATEGORY #3**			**CATEGORY #4**		
Eager to teach lang. arts without a prescribed curr.			Could teach lang. arts without a prescribed curr.			Needed or wanted a prescribed lang. arts curr.			Questionable response		
Frequency of Responses			Frequency of Responses			Frequency of Responses			Frequency of Responses		
Gr. 1	Gr. 2	Gr. 3	Gr. 1	Gr. 2	Gr. 3	Gr. 1	Gr. 2	Gr. 3	Gr. 1	Gr. 2	Gr. 3
6 (40%)	1 (7%)	0 (0%)	6 (40%)	3 (20%)	1 (17%)	3 (20%)	8 (53%)	5 (83%)	0 (0%)	3 (20%)	0 (0%)

number of years." "I'd like to think that I could, but I would want the objectives."

The individuals who were designated as needing or wanting a prescribed curriculum clearly indicated this desire during the interview. Comments such as "No, I would want a program to follow . . .," "I would say I feel more comfortable using a program like Expressways . . ." or "I would prefer that there be some guidance there" were commonly found within their responses.

Three teachers in group two were not assigned to a definite category because their answers reflected a diversity in thought. Although they each claimed that they felt they could teach language arts without a curriculum, they concluded their responses with these statements, "I would like to know a year in advance . . .," "I would not want to do it for very long . . .," or "Well, I would need a reader and help from other teachers." Consequently, these responses were identified as being questionable.

Initial Contact with the Respondents

Before approaching teachers to participate in the study, the researcher telephoned the school principals and notified them of the individual(s) on their staffs who had been selected as part of the study sample. These people were then contacted in the order in which their names had been chosen. The purpose of the study was reviewed and teachers were informed of the major topics that would be dealt with through the interview and the subsequent questionnaires. An estimate was also given of the time that would be required to complete the interview and the questionnaires. Once a teacher confirmed that he or she was willing to take part in the study, a suitable time for conducting the interview was established.

Only two teachers, both of whom were from the second group, indicated that they did not wish to participate in the remainder of the study. One individual explained that she was retiring and did not want to become involved in a project that would extend into the next school year. The other teacher had recently been seconded to work at the District Office and stated that, because of the changes this would necessitate, she did not feel that she had the time to do the interview or the questionnaires that would follow. For the additional two teachers who were needed for this group, the researcher contacted the next two names on the list. Both of these individuals agreed to participate in the study.

The Interview

Most of the interviews for this study took place during the months of June and July 1986. One, however, had to be completed in September as it was inconvenient for the individual to meet with the researcher at the end of the school year or in the summer months.

Eighteen of the interviews were conducted during the day at the schools in which the teachers worked. This was made possible by the fact that principals permitted teachers to use time during the administrative days at the end of June for this purpose. Four other teachers chose to do the interview at the end of an official school day, once the students had been dismissed. The remaining 14 interviews were held at the teachers' homes.

In nearly every instance the interview was conducted in a quiet room which provided privacy for an uninterrupted session. Only in two cases, where the interviews were being held at teachers' homes, did minor interruptions occur. The length of the interviews varied depending on the degree to which the teacher expounded on the particular questions. The majority of the interviews, however, ranged from an hour to an hour and fifteen minutes.

An introduction of approximately ten minutes preceded each interview session. During this time period the researcher attempted to develop a comfortable rapport with the teacher. According to Spradley (1979, p. 78), the development of rapport or a basic sense of trust between the interviewer and the informant nurtures a free flow of information. A brief description of the reseacher's own elementary school teaching experience was given before proceeding to explain the purpose of the interview. It was also stressed that there were no correct answers and that the personal information the respondent could provide, including one's own biography and teaching experience, was essential to the study.

Prior to beginning the actual questions on the interview schedule, the researcher requested permission to tape record the interview so that it could be later transcribed. The tape recorder was small and equipped with a built-in microphone thus making it possible to place the device in an unobstrusive position. Teachers were also assured that the tapes and the ensuing transcripts would be treated in a confidential manner and that anonymity would be guaranteed in the presentation of the data. All but two of the participants agreed to have the sessions recorded. These individuals asked that the researcher script-tape the interview, as they found the presence of a tape recorder caused them to become quite nervous. Due to the time required to carefully record the key points of each response, these interviews lasted about an hour and thirty minutes. To ensure that no information had been omitted or misinterpreted, the researcher asked the two teachers to proofread the notes at the conclusion of the interviews.

The interview questions were read to the teachers following the order of the established schedule. Because of the exploratory nature of the study, however, probing questions were asked as the need for them became apparent to the researcher. This strategy was employed primarily when a response seemed incomplete or the researcher was unsure of the intended meaning. Sourcebooks and student-related materials which corresponded to the level(s) of the Expressways Program being taught by the participant were made available to use for reference throughout the interview period.

Teachers' overall reactions to the interview were positive. At the conclusion of the session, many of the participants indicated that they had enjoyed having the opportunity to voice their implementation concerns and to reflect on how they had personally adapted the Expressways Program.

The Questionnaires

Because of the time required for the researcher to transcribe the interviews and develop the related questionnaires, the final phase of data collection did not occur until the spring of 1987. At this time, each teacher was sent a transcript of his or her interview as well as a copy of the interview schedule. The interview schedule was included to facilitate reading of the interview, as questions did not appear in their entirety on the interview transcripts. The materials were returned to teachers to provide them with the opportunity of clarifying a response if they felt it was necessary or of supplying any additional information which they considered relevant to the study. Although this intention had been discussed at the conclusion of the actual interview session, it was reviewed in a letter which was enclosed with the transcripts.

The questionnaires (Appendices C to G) were distributed approximately three weeks after the delivery of the interview transcripts. This was done to ensure that teachers would have time to read and reflect on the interviews before being asked to complete the related questionnaires. A letter was included which explained the source of the data for the questionnaires and some general directions about their completion. Participants were also informed that the reseacher would contact each of them within a week to arrange a time for a meeting to discuss the questionnaires and questions that had possibly arisen about the interview.

The fact that the researcher was teaching full time precluded the scheduling of the meetings during the official school day. Twenty-eight of the teachers chose to have the meeting at their homes, either during the evening or on the weekend. The remaining eight participants preferred to have the researcher come to their schools once the students had been dismissed.

The meetings conducted at the schools were held in the teachers' classrooms which provided for quiet, uninterrupted sessions. All the teachers who asked the researcher to come to their homes also arranged for such a setting. The researcher interpreted this gesture as a sign of the teacher's interest in the study. The time required to discuss the interview transcript and the related questionnaires ranged from forty-five minutes to an hour. There were only four cases which extended beyond an hour and this was due to the fact that the teachers had not completed all the questionnaires prior to the researcher's arrival. The sessions were not recorded; however, notes were made on any additional information which teachers provided about their interview or the questionnaires.

The same format was followed during each meeting. After making general inquiries about the school year as a means of establishing rapport, the researcher gave teachers the opportunity to discuss details they had perhaps forgotten to mention during the initial interview or to explain changes which they may have made in the interview transcript since it had been returned to them. The researcher also took advantage of this time to make inquiries about any responses which she had found to be unclear or incomplete when analyzing the interviews.

Once discussion of the interview transcripts was completed, the teacher and the researcher carefully went through each of the questionnaires. This was done to ensure that teachers had completed the questionnaires according to the instructions and to determine if the researcher and the teacher shared a common interpretation of the various items on the questionnaires. The latter objective was accomplished by the researcher giving a summary of the meaning underlying each item.

Three teachers were found to have misread the directions for the questionnaires related to sense of comfort, implementation concerns, and reasons for adaptations. Instead of ranking a maximum of five items on each questionnaire they rated each item with one of the numbers from one to five, using five as meaning maximum concern or importance. These individuals were provided with new questionnaires and given adequate time during the session to make the necessary changes. There were several occasions where teachers indicated that they had misinterpreted an item and thus wished to change their response. If, when going through the questionnaire, the researcher noted a significant discrepancy between a teacher's interview response and a related questionnaire response, she asked for clarification so that the findings of the study could be presented accurately.

The researcher had been concerned that teachers might react negatively to the questionnaires because of the amount of time that was required for their completion. Comments made throughout the final meeting, however, indicated that such a concern was perhaps unfounded. Many teachers remarked on how interesting it had been to learn about other teachers' implementation concerns and the ways that they had adapted the Expressways Program. Two individuals mentioned that it had taken them a long time to do the questionnaires but went on to say that they would like to see the final findings of the study.

Data Analysis Procedures

The interview transcripts and the subsequent questionnaires were analyzed in different ways to facilitate interpretation and organization of the collected data.

Interview Transcripts

The initial analysis of the interview transcripts was based on Spradley's (1980) analytic procedures for identifying domains and a content analysis process outlined by Nolan (1978). This categorization of the data was essential to the development of the questionnaires but since it was discussed previously it is not described again in this section. Further use of the transcripts included comparing teachers' interview responses with answers they provided on the related questionnaires. Frequently, interview responses clarified or supported particular tendencies which were suggested by the results of the questionnaires.

The Questionnaires

Part One. The items on the questionnaires pertaining to sense of comfort, implementation concerns, and reasons for adaptations were grouped to facilitate the presentation of the findings. In each case, the same procedures were followed to develop suitable categories. First, the researcher studied the items on the questionnaire searching for commonalities among them. On the basis of observed similarities, specific categories and criteria for determining the inclusion of an item within them were established. The researcher then sorted the items to determine the adequacy of the defined guidelines.

Several plans for categorizing the items on a questionnaire were usually designed before a definite scheme was selected. The thesis advisor was asked to sort the questionnaire items according to each of the proposed plans. This was done to check the appropriateness and reliability of the different categorization schemes. At the conclusion of this session, the consistency in the researcher's and the thesis advisor's application of various schemes was analyzed. Any significant discrepancies were discussed in an attempt to determine the underlying cause(s) for such differences in the sorting processes. Each categorization scheme was also evaluated for its overall clarity and suitability to the topic being studied. All of these factors were taken into consideration before deciding on the final categorization scheme to be used to present the data from a particular questionnaire.

Part Two. The frequency with which teachers chose specific items on the questionnaires related to sense of comfort, implementation concerns, and reasons for adaptations was calculated and charted for each of the study groups as well as the entire study sample. Percentages were also included to facilitate interpretation of the findings. The following example illustrates the above procedure.

CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	Gr. 1	Gr. 2	Gr. 3	Total
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	3 (20%)	9 (60%)	5 (83%)	17 (47%)

The purpose of developing the frequency distribution charts was to enable the researcher to determine the relative importance of the questionnaire items to each of the defined study groups and to the teachers as an entire group. On the basis of this information the researcher could also make comparisons among the three groups.

Part Three. The researcher also analyzed the frequency with which teachers ranked items on the questionnaires related to sense of comfort, implementation concerns, and reasons for adaptations in the first place position, the second place position, and so on up to and including the fifth place position. This analysis was completed in stages. First, frequency counts were completed for those items which were ranked in the first place position. Frequency counts were then done for the items which were ranked in the first or second place positions. If an individual ranked only one item on a questionnaire, however, this ranking was not considered when calculating the frequency counts for items ranked in the combined first or second place positions. This same procedure was carried out until the frequency counts were completed for the first, second, third, fourth, and fifth place positions. The following example demonstrates this process.

FIRST-RANKED CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	Gr. 1	Gr. 2	Gr. 3	Total
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	0 (0%)	3 (20%)	2 (33%)	5 (14%)

FIRST OR SECOND-RANKED CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	Gr. 1	Gr. 2	Gr. 3	Total
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	3 (19%)	6 (20%)	2 (17%)	11 (19%)

FIRST, SECOND, OR THIRD-RANKED CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	Gr. 1	Gr. 2	Gr. 3	Total
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	3 (17%)	7 (17%)	4 (22%)	14 (18%)

FIRST, SECOND, THIRD, OR FOURTH-RANKED CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	Gr. 1	Gr. 2	Gr. 3	Total
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	2 (13%)	3 (11%)	4 (20%)	9 (14%)

FIRST, SECOND, THIRD, FOURTH, OR FIFTH-RANKED CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	Gr. 1	Gr. 2	Gr. 3	Total
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	2 (13%)	4 (13%)	2 (13%)	8 (13%)

When this type of analysis was completed it was possible to determine which items on a questionnaire were consistently ranked in one of the top five positions. For example, the analysis of teachers' rankings of the concerns which they experienced prior to the implementation of the Expressways Program showed that of the 13 given concerns, lack of familiarity with the Expressways Program was considered by teachers to be one of the top five concerns. Information gained in this manner served to support or refute frequency distributions described previously in part two. Although such information is presented through Chapter IV, it does not appear in tabular form.

Part Four. The frequency with which teachers indicated making various adaptations in the Expressways Program was calculated and charted for each of the three groups. For example:

ADAPTATIONS IN THE UNDERLYING GOALS

	Almost Always	Frequently	Occasionally	Almost Never	Not Applic.
Stressed one or some of the four language strands (listening, reading, speaking, and writing)					
Group One	2 (13%)	3 (20%)	4 (27%)	6 (40%)	0 (0%)
Group Two	2 (13%)	8 (53%)	3 (20%)	2 (13%)	0 (0%)
Group Three	1 (17%)	2 (33%)	0 (0%)	3 (50%)	0 (0%)

For the purpose of discussing the data, the first two categories and the third and fourth categories were combined. For example:

ADAPTATIONS IN THE UNDERLYING GOALS

	Almost Always/ Frequently	Occasionally/ Almost Never	Not Applic.
Stressed one or some of the four language strands (listening, reading, speaking, and writing)			
Group One	5 (33%)	10 (67%)	0 (0%)
Group Two	10 (67%)	5 (33%)	0 (0%)
Group Three	3 (50%)	3 (50%)	0 (0%)

The frequency levels were combined because some of the respondents indicated that it was difficult to decide whether they adapted an aspect of the curriculum almost always or frequently, and similarly at the other end of the scale whether an adaptation was made occasionally or almost never. The researcher believed that combining these responses would provide for greater accuracy and clarity in the presentation of the findings. It was decided to consider an adaptation to be significant if the combined frequency level (almost always/frequently) was selected by two-thirds of the teachers in any one of the groups. On the basis of this criterion the adaptations were organized and discussed according to those which were made by all three groups and those which were made by one group but not by the others. Adaptations which did not meet the criterion stated previously were not presented as part of the research findings as it did not appear that such information would lead to a greater understanding of the process of adaptation as it relates to implementation.

Summary

This chapter has provided a detailed description of the development of the measuring instruments and the procedures used in gathering and later analyzing the data. The research design was discussed as well as the rationale for choosing the interview as a principal method of investigation. An explanation of the pilot study and how it influenced the main study was provided. Information related to the composition of the study sample and how it was selected was also reported.

CHAPTER IV

ANALYSIS OF THE DATA

This chapter reports the data originating from the interview sessions and the related questionnaires. The presentation of the findings is organized in sections which correspond to the major variables identified in the research questions posed in Chapter I: factors contributing to a teacher's sense of comfort with the teaching of a subject, implementation concerns, curriculum adaptations, and reasons for adaptations.

Each section describes the responses provided by the three groups in the study sample and compares these data on the basis of the teachers' reported sense of comfort with the teaching of language arts. Tables displaying interview and questionnaire responses are also included to support discussion of the results of the study.

Factors Contributing to Sense of Comfort With Language Arts

A major goal of the study was to investigate the relationship between teachers' professed sense of comfort with the teaching of language arts and their concerns about implementing a curriculum in this subject area, as well as their curricular adaptations. Therefore, specific questions were included in the initial section of the interview guide (Appendix B) which asked teachers to state factors they believed contributed to their sense of comfort with this subject. As a follow-up, teachers were provided with a questionnaire (Appendix C) composed of the different factors that had been mentioned during the interview sessions. The questionnaire required teachers to rank order a minimum of one and a maximum of five factors which they believed gave them a sense of comfort with the teaching of language arts.

Table 3 displays the various factors which were identified in the interviews and the frequency with which these factors were selected by teachers on the related questionnaire. The factors are grouped into categories to facilitate presentation and discussion of the findings. These categories were not used during data collection to avoid potentially influencing the results of the questionnaire. The inclusion of a factor in a specific category was determined by criteria established by the researcher. These criteria are outlined below.

Personal Factors:	Related to the individual teacher's personal background
Student-Related Factors:	The student was the underlying concern of the factor
Curricular Factors:	Related to what was going to be taught in the subject
Instructional Factors:	Related to how the subject would be taught.

Table 3 shows only how frequently the teachers in groups one and two of the study sample selected the different factors. Responses given by teachers in group three are not presented because these

TABLE 3

SUMMARY OF FACTORS WHICH CONTRIBUTED TO TEACHERS' SENSE OF COMFORT WITH LANGUAGE ARTS

	FREQUENCY OF RESPONSES		
	GR. 1 n=15	GR. 2 n=15	TOTAL
PERSONAL FACTORS			
Teaching experiences (e.g., exposure to a variety of curricula, grade levels, student abilities, pilot programs, and teaching techniques affiliated with language arts)	5 (33%)	7 (47%)	12 (40%)
Personal experiences occurring during one's lifetime (e.g., the opportunity to watch family members' progress in the area of language arts, personal development of language arts skills, or past experiences that relate directly to the theme of the reading material)	5 (33%)	6 (40%)	11 (37%)
Personal interest in the subject area of language arts (e.g., the reading process, the grammatical aspects of a language, or the plot and character development of written selections)	6 (40%)	4 (27%)	10 (33%)
Personal enjoyment derived from such aspects of language arts as reading or writing	6 (40%)	4 (27%)	10 (33%)
Educational background (e.g., courses taken at college or university in the area of language arts, English, or the teaching of reading)	4 (27%)	5 (33%)	9 (30%)
Personally initiated professional development (e.g., reading of professional materials related to various aspects of language arts or personal initiative to develop one's own language arts program)	5 (33%)	1 (7%)	6 (20%)
Support or inspiration from other teachers in the area of language arts	2 (13%)	3 (20%)	5 (17%)
STUDENT-RELATED FACTORS			
The degree of importance attributed to a child's success in language arts (e.g., the far-reaching effect of such success)	6 (40%)	5 (33%)	11 (37%)
The pleasure derived from student achievement and enthusiasm in language arts	5 (33%)	5 (33%)	10 (33%)
The ease of diagnosing students' needs in language arts	2 (13%)	0 (0%)	2 (7%)
CURRICULAR FACTORS			
The availability of a curriculum that outlines the progressive development of the skills and concepts involved in language arts	4 (27%)	3 (20%)	7 (23%)
Organized professional development in the area of language arts at the provincial, district, or school level	5 (33%)	1 (7%)	6 (20%)
The extensive scope of the subject area (e.g., reading, writing, speaking, listening, spelling, and grammar)	4 (27%)	1 (7%)	5 (17%)
INSTRUCTIONAL FACTORS			
The amount of time and effort expended planning for the teaching of language arts	3 (20%)	2 (13%)	5 (17%)
The amount of accumulated time spent interacting with or instructing students in the area of language arts	3 (20%)	3 (20%)	6 (20%)

TABLE 3
(continued)

SUMMARY OF FACTORS WHICH CONTRIBUTED TO TEACHERS' SENSE OF COMFORT WITH LANGUAGE ARTS

	FREQUENCY OF RESPONSES		
	GR. 1 n=15	GR. 2 n=15	TOTAL
The accessibility of supplementary language arts materials	2 (13%)	3 (20%)	5 (17%)
The interest level of the reading material affilitated with the language arts curriculum	1 (7%)	3 (20%)	4 (13%)
The originality of instructional approaches and activities afforded by language arts	3 (20%)	1 (7%)	4 (13%)

teachers expressed little comfort with the teaching of language arts. In fact, when asked about sense of comfort one participant responded, "I want to emphasize the sense of discomfort." During the interviews few of these individuals could readily identify factors which contributed to a sense of comfort. Instead, they tended to state factors which they felt gave them a sense of discomfort. The researcher concluded, therefore, that their rankings of the given factors were not valid. Group three interview responses are discussed separately in the final section dealing with sense of comfort.

Relative Importance of Factors Contributing to Sense of Comfort

The data derived from the interviews and the completed questionnaires brought to light several rather interesting findings with respect to the factors related to teachers' sense of comfort with language arts.

A thorough analysis of each of the interview transcripts, a prerequisite to the development of the questionnaire on sense of comfort, revealed that there was considerable diversity in the factors which teachers identified as giving them a sense of comfort with the teaching of language arts. As illustrated in Table 3, 18 distinct factors emerged from the teachers' responses. The apparent variety in these factors would suggest that the sources contributing to teachers' sense of comfort with a subject may vary greatly from individual to individual.

The categorization of the various factors which teachers cited during the interviews as influencing their sense of comfort with the teaching of language arts disclosed an additional finding. Seven out of 18 (39%) of the reported factors fit into the "personal factors" category. This was a significantly higher number than was evidenced in any other established category. The "personal factors" tended to be self-orientated in that they related to a teacher's own background or interests, whereas the majority of the remaining factors seemed less subjective since their existence was not directly influenced by the teacher.

A summary of the results of the questionnaire on sense of comfort illustrated the relative importance teachers associated with the different factors cited during the interviews. As shown in Table 3, seven factors were selected by 30% or more of the participants in groups one and two of the study sample as contributing to their sense of comfort with the teaching of language arts. The fact that five of these seven factors were in the "personal factors" category and that the other two were "student-related" tended to underscore the significant influence of "personal factors" on teachers' sense of comfort with a subject. This idea was further supported by analysis of teachers' rankings of the factors on the questionnaire. It showed that teaching experience, personal interest in the subject, personal enjoyment derived from various aspects of language arts, and educational background were consistently in one of the top-five ranked positions. Even the two student-related factors which were commonly chosen by teachers reflected the importance of "personal factors" as they both related to a teacher's private feelings or reactions.

In view of the previously discussed findings, it appears that teachers' sense of comfort with a subject comes more from their own backgrounds and interests than from factors extrinsic to their biography. This conclusion is consistent with the results of two studies which explored the various sentiments that teachers hold toward their daily tasks in the classroom. Lortie (1975), in his extensive study to achieve a clearer picture of school reality, noted that teachers frequently indicated that "their principal teacher [had] been experience" (p. 79). Considering the supposed pervasiveness of this attitude, it is hardly surprising that teaching experience was identified most often by teachers in this study as contributing to their sense of comfort with the teaching of language arts. Lortie's study also revealed, as did Jackson's (1968) research on how highly-admired teachers viewed life in the classroom, that student achievement and enthusiasm were seen by teachers as valued indicators of good teaching and the prime source of reward for their classroom work. The fact that teachers said such similar factors influenced their sense of comfort with the teaching of language arts certainly demonstrates agreement with Lortie's and Jackson's findings.

Several studies which focused on the curricular decision-making processes of teachers also support the idea that personal and student-related factors are important to a teacher's sense of comfort with the teaching of language arts. According to Leithwood, Ross, and Montgomery (1982) and Jeffares (1973), providing for students' needs was given prime consideration when teachers made curricular decisions. Leithwood et al. also pointed out that teachers made significant mention of the influence that their personal backgrounds and preferences had on such decisions.

Comparison of Factors Selected by Groups One and Two

In comparing the interview and questionnaire responses of the teachers in groups one and two of the study sample, several divergent tendencies became apparent. During the interviews both groups of teachers suggested a variety of factors which they felt were responsible for their sense of comfort with the teaching of language arts. When the teachers were asked to complete the follow-up questionnaire, however, the teachers in group one ranked a substantially higher number of factors than did the teachers in group two. Since there were 15 individuals in each of the groups and the questionnaire permitted teachers to rank up to five factors, it was possible for each group to have ranked a total of 75 factors. The results of the questionnaire showed that the teachers in group one ranked 71 factors, whereas the teachers in group two ranked only 57 factors. The difference in the total number of factors ranked by each group implied that those teachers who professed feeling more comfortable with the teaching of language arts perhaps did so because many diverse factors contributed to their sense of comfort.

A variation was also noted in the degree of contemplation required by participants before replying to interview questions which dealt specifically with sense of comfort. The responses given by teachers in group two were frequently prefaced by such statements as, "Well, ah," or "I feel probably," and were followed by long pauses before the actual reason or reasons were verbalized. Although some teachers in group one did hesitate momentarily before giving their responses, they seemed to find it easier to identify the sources of their comfort and to elaborate upon them.

As indicated earlier, many of the factors cited by teachers in both groups one and two as influencing their sense of comfort with the teaching of language arts could be categorized as personal factors. The frequency with which particular factors within this category were chosen by teachers, however, revealed some interesting differences between the preferences of the two groups.

As illustrated in Table 3, the factors dealing with personal interest in language arts and personal enjoyment derived from various aspects of the subject were each chosen 13% more frequently by the teachers in group one. The tendency for these teachers to give greater importance to factors with a highly intrinsic influence was further confirmed by the rankings of the factors. Table 4 focuses on how often factors were ranked in the first place position of importance. As shown in this table, there were four members (27%) of group one who indicated that personal interest in language arts was of prime importance to their sense of comfort with that subject as compared with one member (7%) from group two. Examination of the respective rankings also demonstrated that teachers in group one consistently ranked personal interest and enjoyment in one of the two top positions, whereas the teachers in group two invariably positioned teaching experience and educational background in either the first, second, or third place of importance.

The difference in the influence of the two factors based on interest and enjoyment was apparent in the interview responses as

TABLE 4

FIRST-RANKED FACTORS WHICH CONTRIBUTED TO TEACHERS' SENSE OF COMFORT WITH LANGUAGE ARTS

	FREQUENCY OF RESPONSES		
	GR. 1 n=15	GR. 2 n=15	TOTAL
PERSONAL FACTORS			
Teaching experience (e.g., exposure to a variety of curricula, grade levels, student abilities, pilot programs, and teaching techniques affiliated with language arts)	2 (13%)	3 (20%)	5 (17%)
Personal experiences occurring during one's lifetime (e.g., the opportunity to watch family members' progress in the area of language arts, personal development of language arts skills, or past experiences that relate directly to the theme of the reading material)	1 (7%)	0 (0%)	1 (3%)
Personal interest in the subject area of language arts (e.g., the reading process, the grammatical aspects of a language, or the plot and character development of written selections)	4 (27%)	1 (7%)	5 (17%)
Personal enjoyment derived from such aspects of language arts as reading or writing	4 (27%)	4 (27%)	8 (27%)
Educational background (e.g., courses taken at college or university in the area of language arts, English, or the teaching of reading)	1 (7%)	2 (13%)	3 (10%)
Personally initiated professional development (e.g., reading of professional materials related to various aspects of language arts or personal initiative to develop one's own language arts program)	1 (7%)	0 (0%)	1 (3%)
Support or inspiration from other teachers in the area of language arts	0 (0%)	2 (13%)	2 (7%)
STUDENT-RELATED FACTORS			
The degree of importance attributed to a child's success in language arts (e.g., the far-reaching effect of such success)	0 (0%)	1 (7%)	1 (3%)
The pleasure derived from student achievement and enthusiasm in language arts	0 (0%)	0 (0%)	0 (0%)
The ease of diagnosing students' needs in language arts	0 (0%)	0 (0%)	0 (0%)
CURRICULAR FACTORS			
The availability of a curriculum that outlines the progressive development of the skills and concepts involved in language arts	0 (0%)	0 (0%)	0 (0%)
Organized professional development in the area of language arts at the provincial, district, or school level	1 (7%)	0 (0%)	1 (3%)
The extensive scope of the subject area (e.g., reading, writing, speaking, listening, spelling, and grammar)	1 (7%)	0 (0%)	1 (3%)
INSTRUCTIONAL FACTORS			
The amount of time and effort expended planning for the teaching of language arts	0 (0%)	0 (0%)	0 (0%)
The amount of accumulated time spent interacting with or instructing students in the area of language arts	0 (0%)	1 (7%)	1 (3%)

TABLE 4
(continued)

FIRST-RANKED FACTORS WHICH CONTRIBUTED TO TEACHERS' SENSE OF COMFORT WITH LANGUAGE ARTS

	FREQUENCY OF RESPONSES		
	GR. 1 n=15	GR. 2 n=15	TOTAL
The accessibility of supplementary language arts materials	0 (0%)	0 (0%)	0 (0%)
The interest level of the reading material affilitated with the language arts curriculum	0 (0%)	0 (0%)	0 (0%)
The originality of instructional approaches and activities afforded by language arts	0 (0%)	1 (7%)	1 (3%)

well. Teachers in group one were more likely to reply in the following manner than were the teachers in group two.

> I love to read myself and I love to write and those sort of things, so I think that I can put across to the kids the love of reading and the enjoyment that there can be in writing and that sort of thing . . . Language arts is just sort of my own love.
>
> It is my personal enjoyment of all of the aspects of language arts. I think that probably just transfers into relating it to others. If I love writing it is easy for me to say, "Hey, we are going to write and you are going to love it!" . . . I think when you are really comfortable or emotionally involved or attached to something, I don't think you find it too hard to teach that or at least convey some part of that to others.

Comments such as the following were given by many of the participants from group two.

> Well, it's interesting and it covers a wide variety of areas and you can bring in a lot of tidbits here and there. It's not a dull subject at all.
>
> Well, it's probably the fact that reading is enjoyable to me. I really like to read and I like to see kids have the desire to read.

The responses of those teachers in group one who made reference to personal interest or enjoyment seemed to reflect greater enthusiasm and conviction than did the responses of teachers from group two who also referred to the factors of personal interest or enjoyment.

Teachers' overall rankings of the factors referring to professional development offered further evidence to support the idea that the actual degree of interest in language arts or the enjoyment derived from it tended to be greater for those teachers in group one who felt more comfortable with the teaching of language arts. The fact that personally initiated and organized professional development were each selected by five (33%) of the teachers in group one as influencing their sense of comfort with the teaching of language arts but by only one (7%) of the teachers in group two would suggest that the teachers in group one had a greater desire to increase their knowledge about language arts. Two factors that would most likely contribute to such a desire would be interest in the subject or personal enjoyment resulting from particular aspects of it.

It was also interesting to note the different manner in which the factor pertaining to support or inspiration from other teachers in the area of language arts was ranked by the teachers. Although it was chosen by two members (13%) of group one, it was only ranked in the third and fifth positions of importance. The frequency with which this same factor was selected by group two teachers was not appreciably higher (20%). However, the positioning of the factor differed significantly from how it was positioned by teachers in group one. Two teachers in the second group ranked support or inspiration from other teachers in the first position and another individual ranked it in the second position. It would appear that teachers feeling less comfortable with the teaching of language arts find their colleagues a more valuable source of information pertaining to the subject area than other forms of professional development. This finding supports the claim by Ingram (1966) that when individuals receive information about an innovation from a group of people they trust and can communicate with easily, it has greater credibility. The impact of such a collegial relationship was certainly apparent in a response made by a teacher in group two. She stated, "There have been people in my life who have created my interest in language arts;

other teachers I have worked with have more or less inspired me in that field."

There were also some notable differences between the frequencies with which the teachers in groups one and two ranked particular curricular and instructional factors. As indicated in Table 3, the factors referring to extensive scope of the subject area, ease of diagnosing the related needs of students, and the originality of instructional approaches and activities afforded by language arts were chosen respectively by 27%, 13%, and 20% of the teachers in group one. These same factors were not selected by more than 7% of the teachers in group two. As the factors mentioned previously dealt either directly or indirectly with the skill development underlying the language arts curriculum, it would appear that teachers who chose these factors as being somewhat responsible for their sense of comfort with the teaching of language arts must have felt relatively secure or comfortable with their knowledge of that subject. Teachers who felt less comfortable with the teaching of language arts credited more superficial instructional factors such as interest level of the reading material with their sense of comfort.

Factors Which Negatively Influence Sense of Comfort

Despite the fact that group three of the study sample contained only six teachers, their responses revealed some rather interesting findings. The reader must be mindful of the group size, however, when considering given percentages, especially in comparison with those referred to for teachers in groups one and two.

The teachers in group three who professed being less comfortable with the teaching of language arts than the other teachers in the study sample found it very difficult to identify factors which they felt positively influenced their sense of comfort with the subject area. It was only after some probing that they might suggest a factor or factors which they considered to have contributed to their sense of comfort. In the majority of such cases, however, the responses reflected greater uncertainty than conviction that the factors in question really had a positive impact. The following excerpts from the teachers' transcripts illustrate this point.

> I don't know. Maybe it's because there is a program to follow. Like there isn't a whole lot to follow in music and art; just whatever you can dig up and that may be some part of it.
>
> I guess I like language arts, but not as well as the other subjects.
>
> Language arts isn't all that bad; it grows on you after a number of years.

There was one factor, however, which was mentioned quite emphatically by three members (50%) of the group as really contributing to their sense of comfort with the teaching of language arts and this was the support from colleagues. After identifying this factor, one respondent went on to say that she wished there was more time for the sharing of ideas among teachers. This finding in conjunction with similar data discussed in the previous section tends to support the idea that the greater one's sense of discomfort is with the teaching of language arts, the greater that person values assistance or inspiration from other colleagues.

Several other factors which teachers in this group suggested during the interview as positively influencing their sense of comfort with the teaching of language arts were teaching experience, the effort put into the preparation for the teaching of language arts, and the teacher's enjoyment derived from reading. Each of these factors was mentioned only once and there was no elaboration on the degree of their influence.

The fact that the teachers in this group felt a sense of discomfort with the teaching of language arts was apparent in their responses when asked, "What factors do you feel contribute to your particular sense of comfort with the teaching of language arts?" One teacher prefaced her reply with, "You mean my sense of discomfort, do you not?" Additional evidence of this sense of discomfort was provided in the following remark which concluded one teacher's answer to the question.

> If there was something that I could give up I would rather give up language arts than anything else. I would rather let somebody else do a good job and know it's being done well rather than me trying to struggle with it.

During the interview situation the teachers in group three identified a variety of factors which they considered were responsible for the sense of discomfort they felt with the teaching of language arts. These factors and the frequency to which they were referred are listed in Table 5.

It was interesting to note that these factors could be grouped in the same categories used for organizing the factors that teachers in groups one and two had indicated were responsible for their sense of comfort with the teaching of language arts. Similarities were also

TABLE 5

FACTORS CONTRIBUTING TO TEACHERS' SENSE OF DISCOMFORT WITH THE TEACHING OF LANGUAGE ARTS

	FREQUENCY OF RESPONSES GROUP 3 n=6
PERSONAL FACTORS	
Minimal liking for the subject area	3 (50%)
Lack of personal interest in language arts	1 (17%)
Lack of educational training in language arts	1 (17%)
Minimal personal success with language related skills	1 (17%)
Feelings of inadequacy in relation to student achievement	1 (17%)
STUDENT-RELATED FACTORS	
High degree of student-related problems in language arts	2 (33%)
CURRICULAR FACTORS	
The vast scope of the subject area	1 (17%)
Difficulty in clearly defining language arts skills and concepts	1 (17%)
High degree of importance associated with language arts	1 (17%)
INSTRUCTIONAL FACTORS	
Dealing with instructional grouping arrangements	2 (33%)

evident in the emphasis given to the different categories. Just as the teachers in groups one and two cited more factors which fit under the category on personal factors than for any of the other categories, so too did the teachers in group three. Further comparisons between the factors identified by the teachers in group three and the teachers in the other groups showed that some factors were the same except for their reverse influence on teachers' sense of comfort. Degree of interest, educational background, scope of the subject area, and degree of importance associated with language arts were mentioned by all the groups.

The initial conclusion one might make in view of this finding is that the elimination of a teacher's sense of discomfort with the teaching of language arts could perhaps be achieved by supplying those factors which teachers had indicated contributed to their sense of comfort with the subject. Closer examination of the factors identified by all the groups, however, shows that such actions may not guarantee the desired results.

In view of the large number of factors that may possibly contribute to one's sense of comfort with the teaching of language arts, supplying the reverse of the factors a teacher associates with a sense of discomfort may not ensure that the person will experience a greater sense of comfort with the subject. For example, if a teacher identifies lack of educational training in language arts as a reason for his or her sense of discomfort with language arts, arranging for that individual to get such training does not guarantee that the person will then feel more comfortable with the subject. It may be that other factors would need to be in place before the individual would be comfortable with the teaching of language arts. Also, due to the very personal nature of some of the factors identified as giving one a greater sense of comfort with the teaching of language arts, it would be extremely difficult to provide a person with the opposite factors. It is not easy to make people like something that they have not liked in the past or to acquire an interest in something that previously did not interest them.

There is also the fact that not all of the factors identified by teachers in group three were cited by the other teachers in the study sample. Examples of this occurrence include personal success with language arts, high degree of student-related problems in the subject, dealing with instructional grouping arrangements, and feelings of inadequacy in relation to student achievement. In such situations it would be difficult to know what to provide to remove the negative influence.

In a study focusing on factors which account for teachers' job satisfaction and dissatisfaction, Sergiovanni (1969) found that eliminating cited job dissatisfiers would not ensure job satisfaction. His research showed that job satisfaction factors and dissatisfaction factors were not arranged on a conceptual continuum and that they were indeed different. The findings of this study referring to factors influencing teachers' sense of comfort with the teaching of language arts would tend to concur to some degree with Sergiovanni's discovery. They are not as conclusive, however, because there is the possibility that the provision of certain factors which supposedly contribute to one's sense of comfort with the teaching of language arts could create a situation in which other very personal factors would develop over a period of time, resulting in the person feeling much more comfortable with the subject.

Summary of Conclusions Related to Sense of Comfort

In summary, several conclusions were drawn from the data gained from interview and survey responses referring to teachers' sense of comfort with the teaching of language arts. These major points are presented on the following pages.

1. There were distinct differences in how comfortable teachers felt with the teaching of language arts and these differences were attributed to many diverse factors.

2. All the factors teachers suggested as influencing their sense of comfort with the teaching of language arts could be grouped into four major categories. About 40% of the cited factors, however, were classified as personal factors.

3. The factors most frequently selected by teachers as contributing to their sense of comfort with language arts fell primarily in the personal category. The student-related category contained the two other commonly chosen factors.

4. The more comfortable teachers felt with the teaching of language arts, the more factors they identified as being responsible for this feeling.

5. Teachers who professed being the most comfortable with the teaching of language arts gave more evidence of enjoying and being truly interested in the subject than did other teachers in the study sample. Factors relating to professional development also tended to

have a stronger impact on teachers who felt the greatest sense of comfort with the subject area, whereas collegial support or inspiration was more important to teachers who felt less comfortable.

6. The teachers in the study sample who professed being the least comfortable with the teaching of language arts generally cited factors which contributed to their sense of discomfort as opposed to their sense of comfort. Interestingly enough, these factors could be grouped into the same four categories used for factors contributing to a sense of comfort.

7. Some factors were mentioned as influencing both a sense of comfort and discomfort with the teaching of language arts. The high degree of personal factors and the differences in other cited factors, however, suggested that the removal of discomfort could not be guaranteed by simply supplying factors that contributed positively to sense of comfort.

Curricular Implementation Concerns

Research has shown that individuals responsible for the implementation of an innovation experience a variety of emotions and concerns as they attempt to establish the subjective reality of the change (Fullan, 1985). Part of the intent of this study was to investigate the kinds of concerns teachers had prior to and during the implementation of the Expressways Program, a language arts curriculum, in relation to their professed sense of comfort with the subject area. Data were collected by means of an interview schedule (Appendix B) and questionnaires (Appendices D and E) developed on the basis of information gained during the interviews which required teachers to rank-order a minimum of one and a maximum of five concerns.

Concerns identified through the utilization of these research techniques are discussed in two sections according to the time of their occurrence in the change process. The results of the questionnaires completed by teachers in all three groups are included in these sections, as none of the teachers experienced difficulties in identifying implementation concerns. Once again, however, when considering data expressed as a percentage the reader is asked to be mindful of the fact that group three was composed of only 6 members as compared to 15 members in each of the other groups.

Concerns Experienced Prior to Implementation

Table 6 displays the different concerns that teachers experienced prior to the actual implementation of the Expressways Program. These concerns are not listed in the same order in which they appeared on the questionnaire (Appendix D) as they were grouped after data collection to allow for greater ease of analysis and reporting. Many of the categories selected for grouping the concerns were the ones developed for organizing the factors contributing to a teacher's sense of comfort with the teaching of language arts. Due to the difference in the nature of these topics, however, the criteria established previously for determining inclusion within the groups had to be reworded.

A concern, by definition, is a matter of interest or importance that originates within an individual. In the case of the

TABLE 6

SUMMARY OF ALL CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GR. 1 n=15	GR. 2 n=15	GR. 3 n=15	TOTAL
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	3 (20%)	9 (60%)	5 (83%)	17 (47%)
The degree of congruency that would occur between my personal philosophy about language arts and student learning and the philosophy underlying the Expressways Program	4 (27%)	1 (7%)	2 (33%)	7 (19%)
Giving up a program that I liked and felt worked well	1 (7%)	2 (13%)	3 (50%)	6 (17%)
The fact that there was another change to be dealt with in the educational system	2 (13%)	2 (13%)	0 (0%)	4 (11%)
Possible teacher supervision by administration or personnel appointed to assist with the implementation of the Expressways Program	0 (0%)	1 (7%)	1 (17%)	2 (3%)
CURRICULAR CONCERNS				
The degree of change that would exist between the Expressways Program and the program I had been using previously	2 (13%)	8 (53%)	1 (17%)	11 (31%)
The degree to which the Expressways Program would have to be supplemented to meet district and school developed language arts learning outcomes	4 (27%)	2 (13%)	3 (50%)	9 (25%)
Specific aspects of the four language strands emphasized in the Expressways Program (e.g., vocabulary development, provision of evaluation materials, value of listening activities, readability of students' books, or assistance provided for the teaching of spelling)	1 (7%)	1 (7%)	0 (0%)	2 (6%)
INSTRUCTIONAL CONCERNS				
Carrying out the "whole group" instructional approach proposed by the Expressways Program	2 (13%)	7 (47%)	4 (67%)	13 (36%)
The amount of preparation and planning the Expressways Program would require	4 (27%)	7 (47%)	1 (17%)	12 (33%)
How I would actually implement some of the goals of the Expressways Program (e.g., integrate the different subject areas or integrate the four language strands)	3 (20%)	7 (47%)	0 (0%)	10 (27%)
STUDENT-RELATED CONCERNS				
The way students would respond to the Expressways Program and the success they would achieve with it	0 (0%)	3 (20%)	2 (33%)	5 (14%)
SUPPORT FOR TEACHERS				
The insufficient amount of in-service provided prior to the implementation of the Expressways Program	5 (33%)	7 (47%)	4 (67%)	16 (44%)

implementation concerns, they were all introduced by teachers. Therefore, to distinguish among them, one had to look beyond this surface level of origination and determine the underlying cause of each of the concerns. The criteria listed below describe the basis upon which the categories were formed.

Personal Concerns: Originated because of the individual teacher's personal background, ability, interests, or beliefs

Curricular Concerns: Originated because of **what** was to be taught in the curriculum

Instructional Concerns: Originated because of **how** the curriculum was to be taught

Student-Related Concerns: Originated because of the students' backgrounds, abilities, or interests

Support for Teachers: Originated because of the presence or absence of different forms of support for teachers.

As indicated in Table 6, teachers experienced a variety of concerns prior to the actual implementation of the Expressways Program. It was interesting to note, however, that the majority of these concerns were expressed in very general terms. According to research conducted by Hall, Loucks, Rutherford, and Newlove (1975) on the levels of use of an innovation, this lack of specificity could be accounted for by the fact that these concerns originated at the orientation level. They discovered that at *this* particular level, at which actual use of the innovation had not begun, teachers tended to be interested in only the general characteristics, effects, and requirements for use of the innovation.

The categorization of concerns existing prior to the implementation of the Expressways Program showed that the number of concerns which were personal in nature exceeded the number of concerns in any of the other categories. This was particularly evident in the case of student-related concerns and concerns that dealt with support for teachers, as each of these categories included only one concern. This finding is consistent with other research which has focused on the implementation of educational innovations. Hall and Loucks (1978) reported that teachers go through stages of concern about an innovation and that during the personal stage, one of the earlier stages in the process, teachers' concerns tend to be self-orientated. They question the demands of the innovation and their own adequacy to meet those demands. Concerns about the impact of the innovation upon students or the best use of information or resources tend to come in later stages.

Comparisons among the categories of implementation concerns revealed a stronger connection between the personal and instructional concerns than any of the other categories. Teachers' descriptions of instructional concerns focused superficially on how proposed strategies would be implemented and the preparational time that would be required prior to instruction, but underlying these statements were unspoken messages of fear or doubt. Interview responses pertaining to such concerns often began with phrases similar to these: "I wondered how I would . . .," or "I wasn't sure how I would make out . . ." The instructional concerns tended to be founded on the newness of suggested approaches but were nurtured by personal factors, such as lack of familiarity with the Expressways Program or dedication to the previous curriculum. The apparent existence of this relationship between these two categories of concerns further emphasizes the overall importance of personal concerns at this stage of implementation.

The frequency with which personal and instructional concerns were chosen also demonstrated agreement with the previous conclusion. As shown in Table 6, nearly half of the teachers (47%) in the study sample indicated that their lack of familiarity with the Expressways Program caused them concern prior to its attempted implementation. Analysis of the teachers' ranking of the concerns lent further support to this finding. It revealed that lack of familiarity was consistently one of the two highest ranked concerns at this point in implementation. Although none of the instructional concerns were mentioned as frequently, as a group they were all commonly identified concerns with no concern being selected by less than 10 people in the study sample.

Another concern voiced by many teachers was the insufficient amount of in-service provided prior to the implementation of the Expressways Program. The fact that 16 (44%) of the teachers said this was a concern and that it was invariably in one of the first or second-ranked positions of importance was hardly surprising considering the degree of uncertainty reflected in the personal and instructional concerns. Teachers may have felt that insufficient in-service was responsible for these concerns or that personal or instructional concerns would be alleviated if in-service was provided.

The tendency for teachers to be concerned about in-service at this stage of implementation is congruent with the results of Pansegrau's study (1983) dealing with teachers' perspectives on in-service education. She discovered that formal in-service activities, provided in conjunction with a mandatory program change, were the only kind of in-service education that teachers attended with the objective to obtain information which would help them effect change in their classrooms. If this is indeed the case, it would appear that insufficient in-service at this time could cause teachers concern.

The fact that insufficient in-service was a concern to many teachers was somewhat inconsistent, however, with an earlier finding related to sense of comfort. Given that only one teacher in group two identified organized professional development as a positive influence on sense of comfort with the teaching of language arts, it seemed somewhat contradictory that seven teachers in this same group would voice a concern about insufficient in-service prior to implementation of a new curriculum. A possible explanation for this discrepancy in findings might be that the majority of teachers in group two had not found past in-service to be extremely valuable but yet believed it was still necessary. This idea was supported by interview responses to the question: Is there anything further you felt could have been done to facilitate implementation of the Expressways Program? Comments such as the following were given by many teachers in group two.

> I feel it would have been helpful to have had a classroom teacher who had taught the Expressways Program conduct the in-service.

> I would like to have had the opportunity to have seen the Expressways Program being taught or at least the time to talk with someone who had used it.

Such responses would imply that teachers wanted in-service, but perhaps not the kind with which they were usually provided.

A comparison between teachers' rankings of the particular concerns and the total number of times the concerns were voiced demonstrated a definite congruency between these two forms of data. Analysis of the various rankings established that, of all the concerns teachers experienced at this stage of the change process, there were seven concerns which were ranked consistently in one of the top five positions. They included lack of familiarity with the Expressways Program, insufficient in-service, all the instructional concerns, and the curricular concern related to the degree to which the Program would have to be supplemented. Seven concerns were identified within this group as opposed to five, due to some concerns being equally ranked in a particular position. As shown in Table 6, the concerns which received the highest rankings were also chosen more frequently by teachers than the remaining concerns. The only inconsistency occurred with the concern pertaining to the degree of change that would exist between the Expressways Program and the previous language arts curriculum. Although this concern was selected by 11 teachers on the questionnaire it was not always in one of the first five positions in the analysis of the rankings.

Comparison of the Concerns Experienced by the Three Groups Prior to Implementation

Comparisons among the concerns identified by the three groups of teachers during the interviews and on the follow-up questionnaires brought to light some interesting tendencies. The most obvious of these was the significant difference in the number of concerns identified by the teachers in each group.

As shown in Table 7, there were five (33%) teachers in group one who selected the response on the follow-up questionnaire (Appendix D) which stated that the proposed implementation of the Expressways Program caused them no concerns. This finding was not characteristic of the teachers in groups two and three. The majority of the individuals in these groups indicated having at least three concerns. Table 7 displays the number of concerns that were identified by individuals within each of the study groups. The remaining 10 teachers in group one who did experience concerns about the proposed implementation of the Expressways Program selected a total of 31 concerns on the questionnaire. In contrast, the teachers in group two chose 57 out of a possible 75 concerns, while the teachers in group three selected 26 out of a possible 30 concerns. These data suggested that the less comfortable a teacher felt with the teaching of language arts, the more concerned this individual tended to be about the proposed implementation of a new curriculum in that subject area.

Responses given during the interviews lent support to this idea. When teachers who professed feeling the most comfortable with language

TABLE 7

DISTRIBUTION OF CONCERNS EXPERIENCED PRIOR TO IMPLEMENTATION

	GROUP 1 **n=15**	**GROUP 2** **n=15**	**GROUP 3** **n=6**
Experienced no concerns	5 (33%)	0 (0%)	0 (0%)
Selected one concern	2 (13%)	0 (0%)	0 (0%)
Selected two concerns	2 (13%)	1 (7%)	0 (0%)
Selected three concerns	2 (13%)	7 (47%)	1 (17%)
Selected four concerns	1 (7%)	1 (7%)	2 (33%)
Selected five concerns	3 (20%)	6 (40%)	3 (50%)

arts were asked if the proposed implementation of the Expressways Program caused them any concerns, their replies tended to be founded on one of two attitudes. The essence of a number of responses was that the new curriculum was not a major concern because as teachers they had used or examined a number of language arts curricula and, furthermore, they felt very comfortable with that subject. The position put forth by many of the other teachers was that they were happy about the curriculum change because the philosophy of the Expressways Program was more in accord with what they believed about the teaching of language arts than was the previous curriculum.

The majority of the statements made by teachers in group two in response to the identical question did not reflect the same sense of confidence that was implied by a number of the responses made by teachers who were more comfortable with language arts. Many of these teachers began their responses with phrases similar to "I was a little bit apprehensive . . ." or "Yes, I was hesitant about it." Only four teachers did not seem particularly anxious about the proposed curriculum change. Two of these individuals based their lack of concerns on the fact that they had heard very positive things about the curriculum from their colleagues. Another teacher said she was not usually worried about implementing a new curriculum because she liked change. Still another indicated that all language arts curricula generally included the same elements. Consequently there was no need to worry about implementation.

The responses given by teachers in group three, who were the least comfortable with language arts, tended to project a greater degree of anxiety. In fact, words such as "very concerned" or "deeply concerned" were used in a couple of answers. After voicing some specific concerns, two teachers stated quite emphatically that they felt very comfortable with the present curriculum and wished it were feasible to continue using it. The following excerpt from another participant's transcript clearly illustrates his concerns.

> I was looking for materials so that I could see what we were going to have to do as soon as I heard it was coming. . . . You have to look at whether you can do it or not. You know, you worry about that sort of thing.

There was only one teacher in the group who looked forward to the curriculum change. This person believed that the whole group instructional approach proposed by the Expressways Program would be much easier than the grouping arrangements that were defined by the old curriculum.

A comparison of each teacher's interview and questionnaire responses revealed an interesting finding. Although teachers chose concerns on the questionnaire which they had discussed during the interviews, many teachers also selected additional concerns. This tendency was particularly common among the teachers in group two. The explanation teachers frequently offered for this action was that, upon seeing certain concerns, they recalled having been influenced by them prior to actually using the Expressways Program. This practice was not evidenced as often among the teachers in group one. It did happen, however, that two teachers in group one who had said they had no concerns during the interview, each chose five concerns on the follow-up questionnaire. Both teachers explained that they had not mentioned the concerns earlier because they had not considered them to be major since they had no problems dealing with them. Another possible interpretation of this behaviour would be that upon viewing the list of concerns which had been developed on the basis of data provided by numerous teachers, these respondents realized that some of their concerns which they had not mentioned previously, were indeed professionally defensible. Consequently, they felt less inhibited about acknowledging them.

Because of the differences in the number of concerns identified by each of the three groups of teachers, comparisons according to the kinds of concerns most frequently cited were not readily apparent. As shown in Table 6, no particular concern or category of concerns tended to be of prime importance to the teachers in group one. In fact, no concern was commonly selected by more than five people. Teachers' concerns seemed to be spread quite evenly among the categories, with the exception of student-related concerns. Even though this category of concerns received minimal attention by teachers in general at this stage of implementation, it was interesting to note that no one in group one was concerned about how students would respond to the new curriculum. Perhaps since these individuals were very comfortable with the teaching of language arts, they felt they could easily deal with any student-related matters that should materialize.

A tabulation of the responses from the questionnaires completed by teachers in group two, however, revealed that there were certain concerns which they identified frequently. As shown in Table 6, concerns related to instruction and support for teachers were all chosen by seven (47%) of the individuals in the group. In addition, the personal and curricular concerns pertaining to lack of familiarity with the Expressways Program and the degree of change that would exist between this Program and the previous curriculum were selected by eight (53%) or nine (60%) of the teachers. The results of the analysis of how the participants in this group ranked concerns concurred with this information. They showed that insufficient in-service, lack of familiarity with the Program, and how to implement certain goals were always among the concerns ranked in the top five positions. These findings suggested that, overall, teachers in group two experienced greater personal apprehension about attempting to implement particular instructional aspects of the Expressways Program than did the teachers in group one.

The tendency for teachers who felt less comfortable with language arts to have more personal concerns about the proposed implementation of the Expressways Program than teachers who were more comfortable with the subject was further confirmed by results of the questionnaires completed by teachers in group three. As shown in Table 6, many of these teachers selected concerns which were categorized as being personal in nature. Insufficient in-service, whole group instruction, and the degree to which the Expressways Program had to be supplemented--all of which reflected personal underpinnings--were also frequently identified as sources of concern. The particular rankings of these concerns further established the high degree of personal apprehension experienced by teachers in this group. As evidenced in Table 8, five of the six (83%) teachers ranked personal concerns in the first place position.

TABLE 8

FIRST-RANKED CONCERNS EXPERIENCED PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GR. 1 n=15	GR. 2 n=15	GR. 3 n=15	TOTAL
PERSONAL CONCERNS				
Lack of familiarity with the Expressways Program (e.g., apprehension about the unknown)	0 (0%)	3 (20%)	2 (33%)	5 (14%)
The degree of congruency that would occur between my personal philosophy about language arts and student learning and the philosophy underlying the Expressways Program	2 (13%)	1 (7%)	1 (17%)	4 (11%)
Giving up a program that I liked and felt worked well	0 (0%)	0 (0%)	2 (33%)	2 (6%)
The fact that there was another change to be dealt with in the educational system	0 (0%)	1 (7%)	0 (0%)	1 (3%)
Possible teacher supervision by administration or personnel appointed to assist with the implementation of the Expressways Program	0 (0%)	0 (0%)	0 (0%)	0 (0%)
CURRICULAR CONCERNS				
The degree of change that would exist between the Expressways Program and the program I had been using previously	1 (7%)	0 (0%)	0 (0%)	1 (3%)
The degree to which the Expressways Program would have to be supplemented to meet district and school developed language arts learning outcomes	1 (7%)	0 (0%)	1 (17%)	2 (6%)
Specific aspects of the four language strands emphasized in the Expressways Program (e.g., vocabulary development, provision of evaluation materials, value of listening activities, readability of students' books, or assistance provided for the teaching of spelling)	0 (0%)	1 (7%)	0 (0%)	1 (3%)
INSTRUCTIONAL CONCERNS				
Carrying out the "whole group" instructional approach proposed by the Expressways Program	1 (7%)	1 (7%)	0 (0%)	2 (6%)
The amount of preparation and planning the Expressways Program would require	1 (7%)	1 (7%)	0 (0%)	2 (6%)
How I would actually implement some of the goals of the Expressways Program (e.g., integrate the different subject areas or integrate the four language strands)	1 (7%)	4 (27%)	0 (0%)	5 (14%)
STUDENT-RELATED CONCERNS				
The way students would respond to the Expressways Program and the success they would achieve with it	0 (0%)	0 (0%)	0 (0%)	0 (0%)
SUPPORT FOR TEACHERS				
The insufficient amount of in-service provided prior to the implementation of the Expressways Program	3 (20%)	3 (20%)	0 (0%)	6 (17%)

The kinds of concerns which the teachers in groups one and two ranked in the first place position also demonstrated agreement with the pattern of their overall rankings displayed in Table 6. As verified in Table 8, teachers in group one ranked a variety of concerns in the first place position. The concerns positioned in first place by the teachers in group two, however, tended to be clustered in the personal, instructional, and support for teacher categories. The consistency in these findings supports the idea that a teacher's sense of comfort with the teaching of language arts tends to influence the number and kind of concerns that the individual has prior to the implementation of a new curriculum in that subject area.

Concerns Experienced During Implementation

As shown in Table 9, teachers experienced a greater diversity of concerns during the actual implementation of the Expressways Program than when they were informed of its proposed implementation. In fact, the number of specific concerns nearly doubled rising from 13 to 23 concerns. A comparison of these concerns with those which teachers expressed at the initial phase of the change effort revealed that very few concerns were repeated. This finding suggests that it would be extremely difficult for individuals responsible for organizing in-service in conjunction with a new curriculum to predict the concerns teachers might have during its actual implementation. Obviously, teachers have to be working with such an innovation in their own particular situations before many implementation concerns become readily apparent.

TABLE 9

SUMMARY OF ALL CONCERNS EXPERIENCED DURING THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GR. 1 n=15	GR. 2 n=15	GR. 3 n=15	TOTAL
PERSONAL CONCERNS				
My ability to successfully implement one or some of the four language strands - reading, writing, speaking, and listening	2 (13%)	1 (7%)	1 (17%)	4 (11%)
The possibility of being supervised by administrative personnel before one was comfortable with the Expressways Program	0 (0%)	0 (0%)	2 (33%)	2 (6%)
CURRICULAR CONCERNS				
The degree to which the Expressways Program had to be supplemented in particular areas, such as grammar or language usage, reinforcement activities for various concepts, or further development of an idea	4 (27%)	5 (33%)	3 (50%)	12 (33%)
The heavy emphasis given to phonics in the Expressways Program and particular phonetic concepts such as syllabication of words, stressed syllables, or various speech sounds associated with certain vowel and consonant combinations	4 (27%)	2 (13%)	3 (50%)	9 (25%)
The writing strand of the Expressways Program (e.g., its limited provision of activities to develop students' writing skills or the feasibility of its commencement in the early primary grades	1 (7%)	3 (20%)	2 (33%)	6 (17%)
The proposed sequential development of some phonetic concepts (e.g., the teaching of consonants before blends, the teaching of rules and exceptions in the same lesson, the teaching of long and short vowels together, or the amount of phonics taught in one lesson)	2 (13%)	2 (13%)	1 (17%)	5 (14%)
The reading strand of the Expressways Program (e.g., the limited provision for reading for enjoyment or the difficulty involved in finding reading materials to complement the themes)	1 (7%)	3 (20%)	0 (0%)	4 (11%)
The difference between the Expressways and the language arts learning outcomes designed at the school or the district office	0 (0%)	1 (7%)	1 (17%)	2 (6%)
The limited amount of phonics in the Expressways Program	1 (7%)	0 (0%)	1 (17%)	2 (6%)
The choice of themes for the different levels of the Expressways Program (e.g., their degree of abstraction and meaningfulness)	1 (7%)	1 (7%)	0 (0%)	2 (6%)
The actual value in changing to the Expressways Program	1 (7%)	0 (0%)	0 (0%)	1 (3%)
INSTRUCTIONAL CONCERNS				
The pace at which one should move through the various levels of the Expressways Program	5 (33%)	8 (53%)	4 (67%)	17 (39%)

TABLE 9
(continued)

SUMMARY OF ALL CONCERNS EXPERIENCED DURING THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GR. 1 n=15	GR. 2 n=15	GR. 3 n=15	TOTAL
The "whole group" instructional approach proposed by the Expressways Program (e.g., its effectiveness in a classroom with a variety of ability levels, or its feasibility and effectiveness in a classroom with two grade levels or two or more formally defined needs groups)	6 (40%)	5 (33%)	3 (50%)	14 (39%)
The instructional quality of the student's workbooks (e.g., their level of difficulty or the format suggested for answering questions)	1 (7%)	5 (33%)	1 (17%)	7 (19%)
The availability of core materials such as the student's workbooks	1 (7%)	0 (0%)	0 (0%)	1 (3%)
STUDENT-RELATED CONCERNS				
The amount and level of difficulty of new vocabulary found in the Expressways Program	5 (33%)	6 (40%)	0 (0%)	11 (31%)
The level of difficulty of the Expressways Program (e.g., its effectiveness with students of varying ability levels)	3 (20%)	4 (27%)	0 (0%)	7 (19%)
Students' lack of preparation for coping with the activities from the listening strand of the Expressways Program	2 (13%)	0 (0%)	0 (0%)	2 (6%)
If teachers in other schools or districts were implementing the Expressways Program according to its underlying philosophies	1 (7%)	0 (0%)	0 (0%)	1 (3%)
SUPPORT FOR TEACHERS				
The lack of organized in-service and formal assistance provided by the district office after the Expressways Program was implemented	1 (7%)	5 (33%)	4 (67%)	10 (28%)
Parental reaction to the expectations and methodologies suggested by the Expressways Program	2 (13%)	1 (7%)	0 (0%)	3 (8%)
The absence of the opportunity to talk with or observe someone who had either used the Expressways Program previously or who was also implementing the Program, to share concerns, to discuss the effectiveness of particular strategies, and to learn of possible additions or omissions that should be made in the Program	2 (13%)	2 (13%)	1 (17%)	5 (14%)
ASSESSMENT CONCERNS				
The evaluation component of the Expressways Program (e.g., the limited provision of evaluation materials, the quality of the end-of-level tests, or the minimal guidance given as to how to assess a student's progress in the four language strands)	5 (33%)	4 (27%)	2 (33%)	11 (31%)

Another notable difference in the concerns which developed during as compared with prior to the implementation of the Expressways Program was their degree of specificity. Teachers tended to explain their concerns in far more detail. This was particularly evident in the category of curricular concerns where specific examples were frequently cited to clarify the nature of a concern. The tendency for concerns to become more specific was also clearly illustrated in the concern referring to the whole group instructional approach. Prior to implementation teachers questioned how it would be carried out, but during implementation they began to challenge its feasibility and effectiveness in a classroom with a variety of ability levels or grade levels. The research findings of Hall et al. (1975) on the levels of use of an innovation, support this finding. They found that as people's use of an innovation became more routine, their knowledge of resources and the effect of activities usually increased. Since all the teachers in this study had used the Expressways Program for at least one school year, it is understandable that their concerns tended to be more explicit.

It was interesting to note that the majority of concerns which teachers experienced during the implementation of the Expressways Program could be categorized according to the classification scheme which had been used to group the concerns they experienced prior to implementation. This was made possible by the fact that even though many of the concerns were essentially quite different, there wee traces of similarities in their underpinnings. The only new category that was created dealt with assessment concerns. The criterion established for determining inclusion in this group is explained below.

Assessment Concerns: Originated because of something related to evaluation materials or means of assessing student progress.

In view of the attention schools generally give to academic achievement (Sarason, 1982), it is surprising that assessment did not become a concern until the implementation of the Expressways Program was in progress. This finding is consistent, however, with other research findings related to implementation. According to Hall and Loucks (1978), teachers are not usually concerned about the evaluation of student outcomes in terms of performance or competencies until the use of an innovation is starting to become routine.

The categorization of concerns experienced during the implementation of the Expressways Program revealed several other distinct features of teachers' concerns at this particular stage of implementation. As indicated in Table 9, the number of different curricular concerns teachers experienced during implementation far exceeded the number of concerns in any other category. Out of 23 unique concerns, 9 were categorized as being curricular in nature. This was a significantly higher number of curricular concerns than was cited prior to implementation. Such an increase would imply that as teachers became more familiar with the curriculum, they started to question its underlying philosophy as well as specific aspects about its objectives, content, activities, and resource materials.

It was further noted that, as teachers began working with the Expressways Program, personal concerns tended to decrease both in number and in the frequency with which they were identified by teachers as being a source of anxiety. As confirmed in Table 9, personal concerns moved from a position of major importance prior to implementation to a position of minimal importance during implementation.

Contrary to the personal concerns, student-related concerns became more prominent during implementation. Instead of worrying about the demands of the new curriculum and their personal adequacy to meet them, teachers began to attend to the impact the innovation was having on their students. This finding demonstrated agreement with Hall and Louck's research (1978) mentioned earlier on the stages of concern an individual may go through when attempting implementation of an innovation. They discovered that teachers did not focus on the relevance of an innovation for students until issues related to efficiency, organizing, managing, scheduling, and time demands, which generally developed during the early stages of implementation, were no longer a priority.

It was also interesting to note the changes in the relationships among the categories of the concerns identified at different times in the implementation of the Expressways Program. Prior to implementation, there tended to be a clear connection between personal and instructional concerns. Comparisons among the categories of concerns experienced by teachers during the implementation of the Expressways Program, however, revealed a stronger relationship between instructional and student-related concerns. Although the instructional goals, approaches, and materials proposed by the Expressways Program appeared to be at the root of teachers' instructional concerns, the actual development of these concerns seemed to be fueled by the value which teachers believed these instructional aspects had for their students. This supposition was based on the fact that when teachers discussed such concerns, they frequently made reference to students' reactions. The following statements illustrate this point.

> A lot of my children couldn't keep up. I couldn't keep them all together; just you know because of the background knowledge some of the children had.

> When they start a new level they should at least have things that the children could do and would feel happy about doing. The first six pages in the workbook, but of course I could have skipped them, were all reading comprehension. . . . They found it really hard to handle.

> I wasn't very pleased with the workbook . . . the way the questions were asked and the level of thinking that was expected of the students. I just found they really had a hard time.

The fact that student interests were often underlying many of these instructional concerns provided additional evidence of the shift from self to students in the orientation of the concerns teachers experienced during as opposed to prior to the implementation of the Expressways Program.

Analysis of the various rankings of the concerns and a summary of the number of teachers who selected each concern both revealed that the pace at which one should move through the Expressways Program, the whole group instructional approach it proposed, the amount and level of difficulty of new vocabulary, the procedures recommended for evaluation, and the degree to which the curriculum had to be supplemented were the top-five, identified concerns. It was interesting to note that these concerns were not concentrated within one or two specific categories as was the case with many of the major concerns which existed prior to implementation.

As shown in Table 9, the pace at which one should move through the various levels of the Expressways Program was the concern selected most frequently by teachers on the related questionnaire. The importance of this concern was further emphasized by the first-placed ranking shown in Table 10. Seven individuals (20%) in the study sample ranked the item pertaining to pacing in the first position. This finding is consistent with other research results. Sarason (1982), who has done extensive classroom observations, indicates that "teachers and other school personnel have inordinate difficulty in thinking other than in terms of covering X amount of material in X amount of time" (p. 188). He states that for teachers to do otherwise would constitute foreign behaviour, in view of the fact that most schools are organized according to grade levels which necessitate that students cover a definite range of material each year. Sarason goes on to point out, however, that teachers are frequently disturbed by an imposed time criterion because of the repercussions suffered by some of their students as a result of its application. This attitude could be seen in many of the statements which teachers made about pacing in relation to the Expressways Program. The following quotes are typical examples.

> I think two levels is just too heavy. . . . Just to get through books I don't agree with. I like to bring in other things and make it fun, but learning at the same time.
>
> That always bothers me at the beginning of the year when they ask you how far you plan on getting . . . because you don't know your class and you don't know how quickly you can move them.

TABLE 10

FIRST-RANKED CONCERNS EXPERIENCED DURING THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GR. 1 n=15	GR. 2 n=15	GR. 3 n=15	TOTAL
PERSONAL CONCERNS				
My ability to successfully implement one or some of the four language strands - reading, writing, speaking, and listening	0 (0%)	0 (0%)	0 (0%)	0 (0%)
The possibility of being supervised by administrative personnel before one was comfortable with the Expressways Program	0 (0%)	0 (0%)	0 (0%)	0 (0%)
CURRICULAR CONCERNS				
The degree to which the Expressways Program had to be supplemented in particular areas, such as grammar or language usage, reinforcement activities for various concepts, or further development of an idea	2 (13%)	0 (0%)	0 (0%)	2 (6%)
The heavy emphasis given to phonics in the Expressways Program and particular phonetic concepts such as syllabication of words, stressed syllables, or various speech sounds associated with certain vowel and consonant combinations	2 (13%)	2 (13%)	1 (17%)	5 (14%)
The writing strand of the Expressways Program (e.g., its limited provision of activities to develop students' writing skills or the feasibility of its commencement in the early primary grades)	0 (0%)	1 (7%)	1 (17%)	2 (6%)
The proposed sequential development of some phonetic concepts (e.g., the teaching of consonants before blends, the teaching of rules and exceptions in the same lesson, the teaching of long and short vowels together, or the amount of phonics taught in one lesson)	1 (7%)	0 (0%)	0 (0%)	1 (3%)
The reading strand of the Expressways Program (e.g., the limited provision for reading for enjoyment or the difficulty involved in finding reading materials to complement the themes)	0 (0%)	1 (7%)	0 (0%)	1 (3%)
The difference between the Expressways and the language arts learning outcomes designed at the school or the district office	0 (0%)	0 (0%)	1 (17%)	1 (3%)
The limited amount of phonics in the Expressways Program	0 (0%)	0 (0%)	1 (17%)	1 (3%)
The choice of themes for the different levels of the Expressways Program (e.g., their degree of abstraction and meaningfulness)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
The actual value in changing to the Expressways Program	1 (7%)	0 (0%)	0 (0%)	1 (3%)
INSTRUCTIONAL CONCERNS				
The pace at which one should move through the various levels of the Expressways Program	2 (13%)	4 (27%)	1 (17%)	7 (20%)

TABLE 10
(continued)

FIRST-RANKED CONCERNS EXPERIENCED DURING THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GR. 1 n=15	GR. 2 n=15	GR. 3 n=15	TOTAL
The "whole group" instructional approach proposed by the Expressways Program (e.g., its effectiveness in a classroom with a variety of ability levels, or its feasibility and effectiveness in a classroom with two grade levels or two or more formally defined needs groups)	1 (7%)	1 (7%)	0 (0%)	2 (6%)
The instructional quality of the student's workbooks (e.g., their level of difficulty or the format suggested for answering questions)	1 (7%)	1 (7%)	0 (0%)	2 (6%)
The availability of core materials such as the student's workbooks	0 (0%)	0 (0%)	0 (0%)	0 (0%)
STUDENT-RELATED CONCERNS				
The amount and level of difficulty of new vocabulary found in the Expressways Program	1 (7%)	2 (13%)	0 (0%)	3 (9%)
The level of difficulty of the Expressways Program (e.g., its effectiveness with students of varying ability levels)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Students' lack of preparation for coping with the activities from the listening strand of the Expressways Program	0 (0%)	0 (0%)	0 (0%)	0 (0%)
If teachers in other schools or districts were implementing the Expressways Program according to its underlying philosophies	0 (0%)	0 (0%)	0 (0%)	0 (0%)
SUPPORT FOR TEACHERS				
The lack of organized in-service and formal assistance provided by the district office after the Expressways Program was implemented.	0 (0%)	0 (0%)	1 (17%)	1 (3%)
Parental reaction to the expectations and methodologies suggested by the Expressways Program	0 (0%)	0 (0%)	0 (0%)	0 (0%)
The absence of the opportunity to talk with or observe someone who had either used the Expressways Program previously or who was also implementing the Program, to share concerns, to discuss the effectiveness of particular strategies, and to learn of possible additions or omissions that should be made in the Program	1 (7%)	0 (0%)	0 (0%)	1 (3%)
ASSESSMENT CONCERNS				
The evaluation component of the Expressways Program (e.g., the limited provision of evaluation materials, the quality of the end-of-level tests, or the minimal guidance given as to how to assess a student's progress in the four language strands)	2 (13%)	3 (20%)	0 (0%)	5 (14%)

The underlying message in these responses seems to be that teachers feel that finishing the various levels of the Program should not take priority over effective teaching and the provision of quality learning situations.

A comparison of the concerns that teachers identified most frequently both prior to and during implementation of the Expressways Program showed that the whole group instructional approach and the degree to which the curriculum had to be supplemented were among the concerns cited in both cases. This would suggest that the impact of these particular concerns may not diminish appreciably with continued implementation. Interview responses provided further insight into the possibility of this happening. They revealed that teachers were not unduly concerned about the difficulty of locating supplementary materials but were worried about the time it would require. Statements such as ". . . it's having the time to do it . . ." or "it's very time consuming digging up resources" commonly concluded descriptions of such concerns. The fact that research has documented that teachers view insufficient time in their busy schedules as an obstacle to implementation (Fullan, 1982; Goodlad, Klein, & Associates, 1970; Sarason, 1982) provided further evidence to support the idea that concerns founded on the degree to which the Expressways Program had to be supplemented may be of a long lasting nature.

Teachers who expressed concerns about the whole group instructional approach tended to do so because they found such a strategy did not lend itself well to a classroom with two grades or with a class of students who were grouped heterogeneously according to ability. The following quotes are representative of the response given by teachers regarding this concern.

> I had a split class this year and the idea of running two themes in the classroom as far as I am concerned does not work. This was meant to be a one-theme Program.
>
> The only aspect that still causes me concern is the proposed grouping arrangement. . . . There was just too big a gap between some of the children whom I had this year; some were very able students and others experienced great difficulty.

Considering the pervasiveness of the variables underlying teachers' concerns about the whole group instructional approach, it is unlikely that such concerns would disappear completely with continued use of the curriculum.

Comparison of the Concerns Experienced by the Three Groups During Implementation

An examination of the concerns teachers experienced during implementation of the Expressways Program in relation to their professed sense of comfort with the teaching of language arts revealed several notable tendencies. A summary of teachers' responses to the questionnaire dealing with such concerns showed that the more comfortable individuals were with the teaching of language arts the fewer concerns they experienced during actual implementation of the curriculum. There was not the significant difference between the number of concerns cited by teachers in groups one and two, however, that existed in relation to concerns voiced prior to implementation. As shown in Table 11, only one (7%) teacher in group one selected the response on the questionnaire which stated that the implementation of

TABLE 11

DISTRIBUTION OF CONCERNS EXPERIENCED DURING IMPLEMENTATION

	GROUP 1 n=15	GROUP 2 n=15	GROUP 3 n=6
Experienced no concerns	1 (7%)	0 (0%)	0 (0%)
Selected one concern	0 (0%)	0 (0%)	0 (0%)
Selected two concerns	3 (20%)	1 (7%)	0 (0%)
Selected three concerns	4 (27%)	6 (40%)	0 (0%)
Selected four concerns	5 (33%)	2 (13%)	1 (17%)
Selected five concerns	2 (13%)	6 (40%)	5 (83%)

the Expressways Program caused them no concerns, as compared with 5 (33%) teachers who had chosen a similar response pertaining to concerns prior to implementation. The remaining 14 (93%) teachers in group one identified 51 out of a possible 70 concerns, while the teachers in group two selected 58 out of a possible 75 concerns. In contrast, the teachers in group three chose 29 out of a possible 30 concerns. A breakdown of the number of concerns identified by each teacher, displayed in Table 11, demonstrated agreement with the finding suggested by the total concerns cited by each group. That is, as sense of comfort decreased, teachers generally cited more concerns.

The apparent increase in concerns voiced by teachers in group one at this stage of implementation may be accounted for by the fact that these concerns usually originated because of students or another external factor, whereas concerns prior to implementation tended to be motivated by factors related directly to the teacher. Since sense of comfort has been shown to be a relatively personal characteristic, it would stand to reason that this variable would have less influence on concerns which developed because of factors other than those related to a teacher's personal background, ability, interests, or beliefs.

The results of the questionnaire also revealed that lack of organized in-service was of much greater concern to teachers in groups two and three as they attempted to implement the Expressways Program than it was to individuals in group one. As shown in Table 9, only one participant in group one selected this concern on the questionnaire as opposed to nine teachers from the other groups. These data suggested that the less comfortable individuals were with the teaching of language arts, the more they desired to have in-service provided on an ongoing basis during implementation.

This finding was supported by responses teachers gave during the interviews when asked if there was anything further they felt could have been done to facilitate the implementation of the Expressways Program. Most of the teachers in group one felt that sufficient in-service had been arranged to assist with the implementation of the curriculum. Only two individuals wished that more opportunities could be made available to discuss curricular and instructional concerns with their colleagues and administrators. The majority of teachers in groups two and three, however, indicated that they would have preferred having additional assistance during implementation. Comments such as the following were given by many teachers with respect to this matter.

> I would have liked to have seen more in-service with someone who had taught it, rather than the Company because the Company always has a flowery outlook.
>
> I like the idea of getting together with teachers who have taught the Program after we have been in it awhile and kind of comparing notes.

In view of the nature of teachers' interview responses, one would have thought that teachers may have chosen the item on the questionnaire referring to the absence of the opportunity to talk with or observe someone who had either used the Expressways Program or was also implementing the curriculum, as opposed to lack of organized in-service and formal assistance. The fact that this was not the case would suggest that teachers wished to have district office formally arrange in-service activities but wanted some to take the format of discussion sessions.

It was also interesting to note from the questionnaire responses that the concern founded on the instructional quality of the student's workbooks was identified predominantly by teachers in group two. As shown in Table 9, five people from the group selected this particular instructional concern compared to one individual from each of the other groups. Interview responses revealed that the level of difficulty of the workbook constituted the essence of the concern, but offered no explanation for its reported frequency. Teachers claimed that because of the trouble students often experienced with workbook exercises, few pages could be assigned to be completed independently. The researcher concluded that the tendency for teachers in group two to be more concerned about the workbooks might be due to the fact that they used them more frequently or that they found it more difficult to cope with what was expected of the students than did teachers in group one who were more comfortable with the teaching of language arts. Because of the size of group three it was hard to predict on the basis of the questionnaire results if they too would have been concerned by the instructional quality of the workbooks.

Conspicuously absent from the questionnaire responses related to concerns which developed during implementation was the identification of student-related concerns by teachers in group three of the study sample. As displayed in Table 9, teachers from both of the other groups chose various concerns from this category. The researcher interpreted this occurrence to mean that perhaps the teachers in group three were still relatively concerned about their own adequacy to deal with particular curricular or instructional aspects of the Expressways Program and consequently could not focus on how students were affected by the curriculum. This idea was supported by the fact that two individuals from this group selected the concern on the questionnaire which was based on the possibility of being supervised by administrative personnel before one was comfortable with the Expressways Program.

Summary of Conclusions Related to Implementation Concerns

The conclusions drawn with respect to the concerns of teachers both prior to and during the implementation of the Expressways Program may be summarized as follows.

1. The concerns teachers experienced prior to the implementation of the Expressways Program were significantly fewer in number and less specific in nature than were the concerns which they developed during implementation of the curriculum.

2. All the implementation concerns which teachers experienced could be categorized as personal, instructional, curricular, student-related, support for teacher, or assessment-related. Prior to implementation the concerns teachers had most often tended to be self-orientated in that teachers questioned their own adequacy to cope with particular instructional or curricular aspects of the curriculum. The concerns which were most important to teachers during implementation, however, seemed to be more student-orientated in that student interests were often embedded within them even though they were grouped in a different category.

3. The more comfortable teachers felt with the teaching of language arts the fewer concerns they tended to experience both prior to and during the implementation of the Expressways Program. This was most evident, however, during the initial phase of the change effort.

4. Evaluation did not become a concern for teachers until they had used the curriculum in their classrooms, at which point it was one of the concerns that teachers identified most frequently.

5. Insufficient in-service was one of the prime concerns experienced by teachers prior to implementation of the Expressways Program. Once individuals began working with the curriculum, however, only those teachers in groups two and three, who felt less comfortable with the teaching of language arts, were bothered by the limited amount of assistance which was provided during implementation.

6. Concerns related to the degree to which the Expressways Program had to be supplemented and the whole group instructional approach it proposed tended to be of major concern to teachers both prior to and during implementation.

Curriculum Adaptations

A number of studies have shown that during the course of implementation teachers often adapt innovations to suit the realities of their own teaching situations (Berman & McLaughlin, 1976; Fullan & Pomfret, 1977; Loucks, 1983). The question which continues to plague educationists and initiators of innovations, however, is whether adaptation must occur for implementation to succeed and, if so, at what point may it counter the intended or planned use of innovations.

One of the purposes of this study was to learn about the kinds of adaptations which elementary school teachers made in the Expressways Program, a language arts curriculum, after having used it for at least one year.

Data were collected through a structured interview guide (Appendix B) and a follow-up questionnaire (Appendix F) which required teachers to indicate the frequency with which they made the adaptations described during the interview sessions. The findings are presented in sections which correspond to the major components of the Expressways Program defined in the questionnaire. As indicated in Chapter III, only those adaptations which were made by at least two-thirds of the teachers in a study group are considered significant and thus are listed in the tables. However, the complete results of the questionnaire on adaptations appear in Appendix H.

Adaptations in the Underlying Goals

Included in the Expressways Program are a number of goals which are intended to be achieved through use of the curriculum. As shown in Table 12, the more comfortable teachers professed being with the teaching of language arts, the more faithful they seemed to be to those goals. This tendency may be accounted for by the degree of congruency which existed between teachers' philosophies about the teaching of language arts and the philosophy which was reflected in the goal statements of the Expressways Program.

According to Connelly, Finegold, Wahlstrom, and Ben-Peretz (1977), when such philosophies do not agree a curriculum may become

TABLE 12

ADAPTATIONS IN THE UNDERLYING GOALS

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Adjusted the amount of time spent on a particular unit according to its relevancy and interest to the students	12 (80%)	3 (20%)	0 (0%)
Changed the particular levels or number of levels proposed to be completed by each elementary grade level	10 (67%)	5 (33%)	0 (0%)
GROUP TWO (n=15)			
Changed the particular levels or number of levels proposed to be completed by each elementary grade level	10 (67%)	5 (33%)	0 (0%)
Stressed one or some of the four language strands (listening, reading, speaking, and writing)	10 (67%)	5 (33%)	0 (0%)
Gave district or school objectives priorty over the objectives and the content in the Expressways Program	10 (67%)	5 (33%)	0 (0%)
GROUP THREE (n=6)			
Adjusted the amount of time spent on a particular unit according to its relevancy and interest to the students	4 (67%)	2 (33%)	0 (0%)
Changed the particular levels or number of levels proposed to be completed by each elementary grade level	6 (100%)	0 (0%)	0 (0%)
Maintained the same membership in the needs groups throughout the year	4 (67%)	2 (33%)	0 (0%)
Did not consciously integrate other subject areas with the language arts	5 (83%)	1 (17%)	0 (0%)

changed significantly during implementation. In view of the fact that during the interviews many of the teachers in group one indicated that they were not unduly concerned about the proposed implementation of the Expressways Program because they agreed with its underlying philosophy, it is understandable that they made few adaptations in the major goals of the curriculum. Since this attitude about the implementation of the Expressways Program was not as common among the other teachers, particularly many of the participants in group three, it is certainly consistent with the research of Connelly et al. that they would make more adaptations in this area. On the basis of these findings it would appear that teachers who had about the same sense of comfort with language arts, may have shared some common beliefs or understandings about this subject.

It was also interesting to note that only one adaptation was common to all three groups: changing the particular levels or number of levels to be completed by each elementary grade. The reasons most frequently given were the necessity for teachers to be responsive to individual needs and differences among students and to district or school guidelines with respect to the amount of material that was to be covered. The following excerpts from several transcripts illustrate these points.

> It depends on the class. . . . Last year because of the slower group I had, I was not able to finish all the levels.
>
> It highly depends on the class. My class was very confident by and large and these children got things usually the very first time around and so I could do the required levels, but I could see with a different class that you would have to slow down.
>
> We have had to modify in our district because we have no kindergarten and some of our children find that first level very steep and it takes longer to do.

> It's set up for grade two to do levels four and five but the district has found that three and four are more appropriate.

The nature of these responses would suggest that the amount of material curriculum developers propose for students to complete at each grade level may be an aspect of the curriculum which is frequently adapted during implementation.

Although group one and three teachers differed considerably in their sense of comfort with the teaching of language arts, the teachers in both of these groups tended to adjust the amount of time spent on a unit according to its relevancy and interest to the students. It would seem, therefore, that such an adaptation may be made in a curriculum irrespective of a teacher's sense of comfort with the related subject area. This finding demonstrates agreement with the results of other studies which focused on implementation and curricular planning. Leithwood, Ross, and Montgomery (1982) and Odynak (1981) found that teachers' decisions to adapt curricular content were strongly influenced by student interest.

Table 12 shows that a significant number of teachers in group two adapted one of the key underpinnings of the Expressways Program which states that no one of the four language strands (listening, reading, speaking, and writing) should take precedence over or be sacrificed to another. Many of these teachers explained making such an adaptation because they felt that students should have more work on certain strands or that they personally tended to be stronger in particular strands. It is possible that teachers' sense of comfort with language arts or their understanding of the subject area may have motivated such an adaptation in the curriculum. Furthermore, when teachers in group two discussed giving district objectives priority over objectives outlined in the Expressways Program, it was often with respect to the strands of reading or writing. This may imply that teachers felt more comfortable with these language strands than either the listening or speaking and consequently found it easier to give them more attention.

The majority of teachers in group three frequently adapted two other goals of the curriculum: the integration of other subject areas with language arts and the organization of needs groups for students experiencing either difficulty or immediate success with certain skills or concepts. These adaptations were hardly surprising considering that these teachers expressed having little sense of comfort with the teaching of language arts.

The developers of the Expressways Program propose that teachers present the majority of new skills or concepts to their class as a whole group. Once the initial instruction is completed teachers are urged to group children according to their particular needs in relation to the newly introduced skill or concept and then to provide appropriate activities. The following comments pertaining to needs grouping reflect teachers' sense of insecurity about employing this strategy.

> I found it very hard to do needs grouping within the class setup during the school time. . . . Quite often my needs grouping would be keeping someone back from music and taking my preparation period [to work with them].
>
> I don't know how I'll do it but I've got to do needs grouping next year. I've got to modify some, because there are students who can't read the material and I have students who should be reading more.

The message underlying these statements seemed to be that teachers were frustrated about not making adequate provision for needs grouping and that they were ultimately concerned about the impact that such an adaptation would have on their students. This would imply that, had teachers felt more comfortable with the idea of needs grouping, they would most likely have implemented it in their classrooms.

When asked about integrating the curriculum in other areas with the language arts curriculum, many of the teachers in group three explained that this was very difficult to achieve since curricula were already developed for these other subjects. The researcher concluded from such responses that perhaps these teachers felt more secure following the language arts curriculum than going beyond what was suggested and developing some of their own activities. This supposition is supported by the fact that the majority of the teachers in this group indicated they did not feel comfortable enough with the teaching of language arts to teach it without a prescribed curriculum such as the Expressways Program.

Adaptations in the Reading Component

Table 13 illustrates the significant adaptations which teachers made in the reading strand of the language arts curriculum. It appears that teachers made more significant changes in relation to the reading strand than they did in any of the other major components of the language arts curriculum.

TABLE 13

ADAPTATIONS IN THE READING COMPONENT

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Substituted reading materials for the books suggested for students to read related to the various themes (e.g., wrote my own books, made classroom books, used stories from old basal reading series, found other related books)	12 (80%)	3 (20%)	0 (0%)
Adapted the idea for some students, that all reading selections should be experienced initially by reading them silently (e.g., put stories on tape, read to or with these students, used partnered reading)	13 (87%)	2 (13%)	0 (0%)
Increased the amount of time suggested for students to read or to be read to for enjoyment	12 (80%)	3 (20%)	0 (0%)
Modified questions provided to guide the interpretation of the reading selections (e.g., supplemented, simplified, deleted, or reworded)	12 (80%)	3 (20%)	0 (0%)
Provided additional stories or activities to reinforce reading comprehension or study skills (e.g., recalling details, main idea, sequencing events, making inferences, cause and effect, index usage, table of contents, etc.)	13 (87%)	2 (13%)	0 (0%)
Provided supplementary activities to reinforce students' recognition and understanding of vocabulary (e.g., cloze exercises or additional sentences or stories using the vocabulary)	11 (73%)	4 (27%)	0 (0%)
GROUP TWO (n=15)			
Increased the amount of time suggested for students to read or to be read to for enjoyment	10 (67%)	5 (33%)	0 (0%)
Modified questions provided to guide the interpretation of the reading selections (e.g., supplemented, simplified, deleted, or reworded)	11 (73%)	4 (27%)	0 (0%)
Provided additional stories or activities to reinforce reading comprehension or study skills (e.g., recalling details, main idea, sequencing events, making inferences, cause and effect, index usage, table of contents, etc.)	10 (67%)	5 (33%)	0 (0%)
Prioritized work attack skills and made corresponding usage of related activities (e.g., stressed context clues, downplayed phonics, emphasized dictionary usage)	10 (67%)	5 (33%)	0 (0%)
GROUP THREE (n=6)			
Attempted to read selections orally after students had read them silently	4 (67%)	2 (33%)	0 (0%)
Increased the amount of time suggested for students to read or to be read to for enjoyment	5 (83%)	1 (17%)	0 (0%)
Modified questions provided to guide the interpretation of the reading selections (e.g., supplemented, simplified, deleted, or reworded)	4 (67%)	2 (33%)	0 (0%)

This occurrence may be accounted for by the attitude about reading which seemed to be prevalent among teachers in the study sample. Responses given during the interview sessions were often embedded with remarks about the overall importance of reading. Even individuals in group one who indicated that they tried to give equal attention to all language strands made comments which reflected this point of view. The following excerpts are typical examples of such statements.

> I feel that although all the language strands are important that reading for comprehension, well it is sort of the main area.
>
> Students have to be able to read in order to do math and the other subjects.
>
> Of course, I understand that reading is the key to everything.

It was further observed in analyzing Table 13 that, the more comfortable teachers were with language arts, the more adaptations they tended to make in the reading component of the Expressways Program. The type of changes which were made by the different groups in the study sample offered a partial explanation for this tendency. As shown in Table 13, the teachers in group one who professed being the most comfortable with language arts made a greater number of adaptations which were of a supplementary nature than did the individuals in the other study groups. They provided additional activities to reinforce reading comprehension, study skills, and the understanding of vocabulary, and also developed questions to complement those designed to guide the interpretation of reading selections. Even the substitution of reading materials for books listed in the curriculum was essentially supplementary in nature since the majority of the teachers made the substitutions because the suggested books were not generally available. In contrast, the teachers in group two identified making only two adaptations which entailed supplementing an existing aspect of the reading component in the Expressways Program, while the teachers in group three made only one such adaptation.

These data suggest that teachers who felt most comfortable with language arts may have seen a greater need for reinforcement or supplementary activities or perhaps found it easier to develop or locate such activities than did teachers who were less comfortable with the subject. In either case, it seems apparent that the greater a teacher's sense of comfort with language arts, the more likely that individual is to make adaptations of a supplementary nature in the reading component of the curriculum.

Further comparisons of the three groups of teachers revealed that there were two kinds of adaptations which teachers tended to make in the reading component of the Expressways Program irrespective of their sense of comfort with language arts. As shown in Table 13, a significant number of teachers in each of the study groups indicated they frequently increased the amount of time suggested for students to read or to be read to for enjoyment and that they modified the questions provided to guide the interpretation of reading selections. Interview responses with respect to the latter type of adaptation, however, implied that teachers in group one were not as dependent on the questions listed in the teacher's sourcebooks as were teachers who professed being less comfortable with language arts. In fact, six individuals from group one stated that they made minimal use of such questions. The following excerpts from two of the transcripts illustrate the general attitude of these teachers.

> I usually don't pay much attention to them . . . I don't know. I just can't put myself into the routine of following the guidebook. . . . ~~We discuss~~ a story according to what [the students] know and what they think may happen next. . . . I don't feel the guidebook should guide a discussion of a story for a group of kids here as compared to a group of kids in St. John or wherever.

> Sometimes I don't even look at them; I just make up my own. They aren't something I have to have there.

Although the other teachers in group one did not describe their use of the questions designed to guide the interpretation of reading selections in the same manner, statements such as "They are a good starting point," or "They are a good guide," often prefaced or concluded their responses. When teachers in groups two and three were asked about their use of such questions, however, they were more likely to reply in the following manner.

> I change them in that I always ask a few of my own and then too it's bringing in their own experiences that relate to the story.

> I have found the questions to be good . . . I generally use them to get started. However, I don't necessarily stick right with them. Sometimes we get off on a tangent and I add additional questions or I ask questions that seem to relate to children's interests.

On the basis of these data, the researcher concluded that many of the teachers seemed to adapt questions according to students' interests but that major modifications tended to be at least partially influenced by teachers' sense of comfort with language arts. This finding provides support for Miel's (1973) position on curriculum development. She advocates that teachers should make adjustments in a curriculum to meet the needs and interests of their students. In fact, she states that teachers should "begin with the children as they are now, with their histories as they are given, and not be [held] to destinations someone else thinks the children should or should not reach" (pp. 109-110).

As shown in Table 13, teachers in both groups one and three of the study sample made adaptations related to the reading of selections in the student's books. The difference in the nature of these adaptations, however, revealed an interesting finding. Whereas teachers in group one adapted the proposed strategy with respect to how students were to initially experience a reading selection by using a different approach, teachers in group three tended to employ the strategy and then to use an additional technique which was not defined in the curriculum. This would suggest that teachers who were most comfortable with language arts perhaps felt more secure about making such an adaptation than did teachers who were less comfortable with the subject.

Adaptations in the Writing Component

As shown in Table 14, the teachers in group one made fewer adaptations in the writing strand of the Expressways Program than did teachers in the groups who felt less comfortable with the teaching of language arts. Interview responses offered a possible explanation for this finding.

Many of the teachers in group one indicated that they believed in the value of the writing techniques such as group compositions based on children's experiences, peer or group editing, and opportunities

TABLE 14

ADAPTATIONS IN THE WRITING COMPONENT

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Supplemented the writing component (e.g., used personal ideas, provided additional or more meaningful topics, did more group stories, included school or district objectives)	13 (87%)	2 (13%)	0 (0%)
GROUP TWO (n=15)			
Supplemented the writing component (e.g., used personal ideas, provided additional or more meaningful topics, did more group stories, included school or district objectives	11 (73%)	4 (27%)	0 (0%)
Varied the emphasis on suggested writng objectives (e.g., stressed grammar-related concepts, emhasized creativity, focused mainly on paragraphing)	11 (73%)	4 (27%)	0 (0%)
Adapted group strategy for writing (e.g., did less group compositions, changed group compositions to individual assignments or very small group projects)	10 (67%)	5 (33%)	0 (0%)
Used alternative approaches to the suggested peer or group editing of written compositions (e.g., teacher checked compositions or worked with students individually, students did self-editing according to defined criteria, used combined effort of teacher and class to edit teacher's notes or compositions or anonymous student work)	11 (73%)	4 (27%)	0 (0%)
GROUP THREE (n=6)			
Supplemented the writing component (e.g., used personal ideas, provided additional or more meaningful topics, did more group stories, included school or district objectives	5 (83%)	1 (17%)	0 (0%)
Used alternative approaches to the suggested peer or group editing of written compositions (e.g., teacher checked compositions or worked with students individually, students did self-editing according to defined criteria, used combined effort of teacher and class to edit teacher's notes or compositions or anonymous student work)	6 (100%)	0 (0%)	0 (0%)

for voluntary writing which were all strongly advocated by the developers of the curriculum. In fact, there were several individuals who stated that they had incorporated these ideas in their classrooms prior to the implementation of the Expressways Program. The following comments illustrate the attitude of most of the teachers in group one regarding the various strategies suggested as part of the writing strand.

> I do the group stories. They're fantastic! I think that's an excellent part of the Expressways Program and that the model really spurs [the students] on to better individual writing.
>
> I do group compositions even more frequently than they suggest. I believe this should be done right to the end of grade eight.
>
> The peer editing is really good. I love that idea and the students like reading to one another and helping each other.
>
> Peer editing is the only expectation that you can have. It is absolutely required. It is the moment of truth.

Such statements would suggest that these teachers were very comfortable employing these strategies with their students. They also imply there was a high degree of congruency between the teachers' and the developers' philosophies on the teaching of writing. Connelly, Finegold, Wahlstrom, and Ben-Peretz (1977) identified such congruency as a factor facilitating the implementation of a curriculum, so it is understandable that the teachers in group one made minimal adaptations in the writing component of the Expressways Program.

Teachers who felt less comfortable with language arts did not tend to share the same enthusiasm about the writing component of the curriculum which was voiced by teachers in group one. This variance in attitude appeared to arise primarily from teachers' sense of comfort with strategies or activities proposed in the Expressways

Program or their perception of the value of such suggestions. The following quotations are representative of answers given by a number of teachers from groups two and three in response to interview questions about the writing strand.

> I don't think I have ever done a group composition all the way through. It is probably just a matter of not doing it because I was unfamiliar with it and, ah, I tended to stay with things I was more comfortable with.
>
> I don't think we did any group compositions together as far as stories are concerned because I wasn't really comfortable with it. I hadn't ever seen it done.
>
> I haven't done a whole lot of editing. I mean they have shared [stories] but there hasn't been a whole lot of editing . . . I don't feel they are ready for it.
>
> At grade three I don't see a lot of that being done until at least after Christmas; until they have learned on their own some of the basic editing ideas.

There were also four teachers in group two and two teachers in group three who indicated that writing was not one of the language strands that they particularly enjoyed or one with which they felt a personal sense of success. They tended to describe writing with statements such as "It isn't one of my better things," ". . . that's one of my weakest areas," or "It's not an area that I am keen on."

In view of all of these circumstances it is hardly surprising that a significant number of teachers in group two adapted the group strategy of writing and that even a greater number of individuals in both groups two and three used alternative approaches to the suggested peer or group editing of written compositions.

It was further observed in examining questionnaire results that a significant number of teachers in each of the three groups supplemented the writing component of the Expressways Program. One of the most frequently cited examples of this kind of adaptation was the provision of more meaningful topics for written compositions. Teachers indicated that they believed such a change was often essential if students were to be motivated to write. The following excerpt from an interview transcript is typical of the response given by many teachers on this matter.

> I have found that a lot of times their topics didn't seem to be of interest to the students. . . . If you can relate a topic to themselves somehow then their writing is so much better, or it seems to flow so much easier.

An adaptation of this nature supports the idea proposed by Loucks (1983, p. 3) that "no two learning situations are alike, and that no program developed in one place can be used 'as is' in another."

A number of the teachers in each of the three groups also stated that they supplemented the writing component of the curriculum by using ideas that they had found to work well in the past. One individual summarized the message underlying many teachers' responses when she said, "I've got ideas and things that I know worked well with other classes and I tend to use them." This finding is consistent with the results of two other studies. When investigating the factors which affect teachers' curriculum decisions, Leithwood, Ross, and Montgomery (1980) noted that teachers ranked what they had found to work well with students as the most salient influence. Lortie (1975), in an extensive study to achieve a clearer picture of school reality, observed that teachers were not eager to give up practices that had proven to be successful. In view of these data it would appear that teachers are most likely to make adaptations of a supplementary nature in the writing component of a language art curriculum regardless of their sense of comfort with the subject.

As shown in Table 14, teachers in group two also adapted the writing strand of the Expressways Program by varying the emphasis on suggested writing objectives. Interview responses further revealed that the objectives which focused on grammar-related concepts were the ones that individuals tended to stress most frequently. A possible explanation for this tendency may be that, since many teachers in this group did not feel particularly comfortable with some of the strategies outlined in the curriculum to develop students' writing skills, they decided to spend more time on grammar, an area with which they would probably be more familiar. Such a hypothesis concurs with the results of Olson's (1980) research on the implementation of a science project. He found that teachers looked for familiar constructs within the project to help reduce the ambiguity of the teaching situation that had been caused by the introduction of the innovation.

Adaptations in the Listening Component

During the interview sessions teachers mentioned several ways in which they changed the listening component of the Expressways Program. However, as shown in Table 15, the results of the questionnaire revealed that expanding listening objectives was the only adaptation which was made by a significant number of individuals within a group on a frequent basis. The fact that this adaptation was unique to teachers in group one who felt most comfortable with language arts may imply that these people found it easier to identify areas of weakness in students' listening skills or the listening component of the

TABLE 15

ADAPTATIONS IN THE LISTENING COMPONENT

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Expanded listening objectives (e.g., included work on listening to directions or specific instructions)	10 (67%)	5 (33%)	0 (0%)

curriculum and to provide alternate activities than did teachers who were less comfortable with the subject. Interview responses offered some support for this idea. Teachers in group one were far more likely to make a comment similar to those which follow than were the teachers in either of the other groups.

> I implement a lot, especially if I see it is a class that needs a lot of listening skills developed.
>
> I have worked a lot on following oral directions because that is generally a weak area.
>
> I use some additional listening where they have to listen to instructions . . . There is some of that in the Program but it is more listening to the story and doing things that way. But I just add that in because I was used to always doing that and it's an important skill.

The tendency for teachers in group one to go beyond what is outlined in the curriculum in terms of listening was consistent with the majority of their decisions to adapt the reading strand. Many of these teachers seemed to find it easier to develop supplementary or reinforcement activities for reading than did the other teachers in the study.

The fact that teachers in groups two and three made no significant adaptations in the listening strand may imply that these individuals did not feel particularly comfortable with this language strand and therefore felt the need to follow the curriculum quite closely. This supposition was partially supported by interview responses pertaining to the listening component of the Expressways Program. Although supplementing listening activities was not an adaptation made by at least two-thirds of the teachers in any one of the three groups, it was interesting to note that nearly all of the individuals in group one mentioned using some of their own listening activities in conjunction with those provided in the curriculum. In contrast, only a third of the individuals in either of the other groups made such a comment.

The questionnaire results also showed that teachers in group two had a greater tendency to stress particular language strands than did teachers in the other groups of the study sample. Interestingly enough, interview responses revealed that the listening strand was not one of the strands which tended to be emphasized.

Adaptations in the Speaking Component

As shown in Table 16, only two significant adaptations were made in the speaking component of the Expressways Program, each of which was common to a different group in the study sample. Possible reasons for this particular finding were revealed in teachers' responses given during the interview sessions.

It was quite clear from statements made by teachers in group one that the majority of these individuals believed that speaking deserved as much attention as the other language strands. There was also evidence that many of the teachers felt that the group discussion, a strategy emphasized in the Expressways Program to develop students' speaking skills, was quite appropriate for this intent. The following excerpts from several transcripts illustrate this point of view.

> I think it is valuable that they get as much speaking time as possible and if they brought something in I always made time for them to show it to the class and offer an explanation.

TABLE 16

ADAPTATIONS IN THE SPEAKING COMPONENT

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Supplemented the speaking component with additional activities (e.g., show and tell, speeches, oral book reports, news sharing time, more dramatization, stressed speaking in complete sentences)	11 (73%)	4 (27%)	0 (0%)
GROUP THREE (n=6)			
Modified the proposed format for group discussions (e.g., used the whole class instead of small groups, lead the discussions for the children, omitted the idea of having a recorder, or limited discussion time)	4 (67%)	2 (33%)	0 (0%)

> I feel group discussions are a reasonable expectation and I believe they are valuable.
>
> Group discussions are a very good thing; you know, getting the children to work together and in a group to share their ideas.

Four teachers indicated that initially they found it a little difficult to implement the small group discussions but that with continued use it became much easier. The fact that these individuals did not give up using the group discussions suggests that they considered them to be beneficial for students and that they had the confidence to keep trying them.

Many of the teachers in group one also made statements which implied that they had a considerable amount of background knowledge on this language strand and that they felt quite confident about employing their personal ideas in conjunction with those described in the curriculum to improve students' speaking skills. The following quotes are typical examples of such responses.

> I did a lot of dramatization this year, over and above what would be in the Expressways Program . . . . I think they should be exposed to it for the creativity that it develops.
>
> A lot of things I've done with the kids are personal things that I do . . . One of the most difficult things I've asked them to do, and I didn't think it was difficult when we first started doing it, was simply tell about a story that you watched on television . . . and be able to tell it in a few sentences to the rest of the kids.

The interview responses of the teachers in group three reflected quite a different attitude about the importance of the speaking strand in language arts and particular strategies suggested in the Expressways Program to develop this skill.

Five (83%) of the teachers stated that they gave least attention to the strand of speaking. In fact, one individual described the instructional situation with respect to speaking in the following manner.

> We haven't done a whole lot on speaking . . . I don't know, maybe I'm still thinking of it as the reading period. I mean thinking of it more as a reading period than a language arts period. I think if I do this that it's taking away from the reading time . . . . I'm really just not comfortable with that aspect of the Program.

When asked about group discussions, three of the teachers indicated that they frequently adapted them by doing fewer of them or changing them to a whole class discussion where there could be more teacher direction. These individuals said they made these modifications because they could see little value in the activity and they personally did not feel comfortable trying to implement it in their classroom. The following quote illustrates the nature of their responses.

> I didn't feel they benefited a lot from group discussions. I mean to get in little groups of five or six I felt was too hard to control with the time we had . . . I felt I had better control and it was just as good if we did it as a class.

Another teacher in group three said she did fewer group discussions because she believed that they were too difficult for students in the elementary grades. It was interesting to note that teachers who felt most comfortable with the teaching of language arts and who also taught at or near the same grade level as this individual did not share this opinion.

The teachers in group two did not make any significant adaptations in the speaking strand. However, comments they made during the interview sessions suggested their attitude about the importance of the speaking strand in language arts and the teaching strategies proposed in the curriculum tended to be somewhere between the positions held by teachers in groups one and three.

These data seem to imply that teachers who are not particularly comfortable with the teaching of language arts are more likely to adapt strategies designed to improve students' speaking skills than are individuals who feel a greater sense of comfort with the subject, as was illustrated in the case of the teachers in group three who changed the group discussions. It also appears that, as teachers' sense of comfort with language arts increases, so too does the probability that they will provide activities to supplement the speaking component of the curriculum.

Adaptations in the Evaluation Component

The Expressways Program stresses that close and continuous teacher observation is basic to the assessment of a student's language development. Consequently, a Language Record Card outlining specific areas of language growth is provided in the Teacher's Sourcebooks, as well as a special section of questions at the end of every unit (Checking Achievement) to assist the teacher in maintaining an ongoing assessment of each student's progress. The curriculum also includes end-of-level progress tests and workbook pages designated for assessment, neither of which, however, are intended to be used as norm-referenced tests. Their purpose is to supply information which may be used to support teachers' evaluations of student achievement as well as to indicate aspects of the work in which particular students are experiencing difficulty.

Table 17 lists the significant adaptations which teachers made in the evaluation component of the Expressways Program. These data show that several changes were common to each of the three groups. This finding would suggest that teachers may adapt particular aspects of the evaluation component of a curriculum regardless of their sense of comfort with the related subject area.

The majority of teachers in the study included more assessment than is suggested or provided in the Expressways Program. Interview responses indicated that two factors influenced this adaptation. First, many teachers expressed the need to have continual, objective evidence of students' progress in the different language strands if they were to provide follow-up instruction to strengthen areas of weakness. In fact, teachers' comments suggested that they based more of their corrective teaching on actual test results than observations of students' daily work. Second, a number of teachers explained that they did more paper-and-pencil tests so that they would have grade scores for the formal student reports that had to be completed at regular intervals throughout the school year. The following excerpts from several transcripts are representative of the responses made by teachers with respect to additional assessment of student progress.

> I've had to add some testing. When you are about halfway through level two it is near report card time and you need some marks to complete your report cards.
>
> Well, in our school we have to give a graded mark so when it comes to the end of a term you're not going to be through the reader and you have to have marks and you've got to have proof of how you got such and such a mark so ah, that's why I tested more frequently.

TABLE 17

ADAPTATIONS IN THE EVALUATION COMPONENT

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Included more assessment than is suggested or provided in the Expressways Program (e.g., did tests after each unit, arranged for assessment before reporting sessions, included quizzes throughout the units)	12 (80%)	3 (20%)	0 (0%)
Disregarded suggested use of "language record cards" for each student at the back of the teacher's sourcebook	14 (93%)	1 (7%)	0 (0%)
Kept less anecdotal records of students' language achievements than is suggested by the Expressways Program (e.g., made a mental note of weaknesses, used record of marks on assessments, checked off mastery of objectives, made occasional notes in plan book)	13 (87%)	2 (13%)	0 (0%)
GROUP TWO (n=15)			
Included more assessment than is suggested or provided in the Expressways Program (e.g., did tests after each unit, arranged for assessment before reporting sessions, included quizzes throughout the units)	14 (93%)	1 (7%)	0 (0%)
Made minimal use of the "Checking Achievement" sections at the end of each unit or the actual Expressways Program when developing forms of assessment	10 (67%)	5 (33%)	0 (0%)
Disregarded suggested use of "language record cards" for each student at the back of the teacher's sourcebook	15 (100%)	0 (0%)	0 (0%)
Kept less anecdotal records of students' language achievements than is suggested by the Expressways Program (e.g., made a mental note of weaknesses, used record of marks on assessments, checked off mastery of objectives, made occasional notes in plan book)	14 (93%)	1 (7%)	0 (0%)
Used workbook pages designated for assessment for a different purpose (e.g., used for review, reinforcement, or diagnostic purposes)	11 (73%)	4 (27%)	0 (0%)
GROUP THREE (n=6)			
Included more assessment than is suggested or provided in the Expressways Program (e.g., did tests after each unit, arranged for assessment before reporting sessions, included quizzes throughout the units)	4 (67%)	2 (33%)	0 (0%)
Made minimal use of the "Checking Achievement" sections at the end of each unit or the actual Expressways Program when developing forms of assessment	4 (67%)	2 (33%)	0 (0%)
Gave more attention to the evaluation of the reading and writing strands than the listening and speaking strands	4 (67%)	2 (33%)	0 (0%)

TABLE 17
(continued)

ADAPTATIONS IN THE EVALUATION COMPONENT

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
Disregarded suggested use of "language record cards" for each student at the back of the teacher's sourcebook	6 (100%)	0 (0%)	0 (0%)
Kept less anecdotal records of students' language achievements than is suggested by the Expressways Program (e.g., made a mental note of weaknesses, used record of marks on assessments, checked off mastery of objectives, made occasional notes in plan book)	5 (83%)	1 (17%)	0 (0%)

> The Expressways Program has some assessment pages in the workbook and then they have an end-of-level test. I wouldn't wait for the end-of-level test. I would make up my own and test after every theme or couple of themes . . . It just helps to keep me on top of where they are making progress.

> I think we would probably test more frequently; probably every week and then it is much easier to reteach and retest if you don't have this much with every child but just a little bit.

The fact that a high percentage of the teachers in each of the three groups did more testing than was suggested by the developers of the Expressways Program is consistent with certain of the findings of Huberman and Miles' (1984) extensive study of the implementation of federally approved innovations. They observed that at some sites in their study sample teachers increased the amount of achievement testing that was stipulated by the innovations being implemented.

As shown in Table 17, teachers did far less subjective evaluation of students' language performance than was proposed by the developers of the Expressways Program. All but one of the participants in the study frequently disregarded completing the Language Record Cards for each student and only a very small number of individuals indicated that they kept extensive anecdotal records of students' achievements. Most teachers explained that they adapted these aspects of the evaluation component of the curriculum because of school or district expectations for quantifiable results in terms of students' progress and the tremendous amount of time required for such record keeping.

A few teachers also stated that they felt more comfortable using a system of marks for evaluation as opposed to observations of each student's performance in language. The following quotations are typical of the reasons given by teachers for doing minimal subjective evaluation.

> I have never used the Language Record Cards . . . . At the end of each unit we have a test and sometimes we do two units and have a test but we have everything all labeled there with our objectives that are being done and the marks and the percentages plus any comments along with it. So the Language Record Cards don't seem necessary.
>
> We do a fair amount of evaluation of our own at this school and this sounds terrible to say but there just isn't time to go down through all of this [Language Record Card] and make up a personal one of these for every student when time is of the essence.
>
> I have a mental anecdotal record but I have not written it down formally. I am not saying that it is not a good idea. I think it probably would be . . . . In theory it sounds excellent, but it is not always possible in practice because of the time element.
>
> We have not had any in-service on actual Record Card keeping. We tend to stay away from things we're not familiar with and work with what we are more comfortable.

Although the adaptations discussed previously did not appear to be directly influenced by teachers' sense of comfort with the teaching of language ars, there were some changes that teachers made in the evaluation component of the Expressways Program which seemed to be related to this variable. Table 17 shows that only the teachers in groups two and three made minimal use of the questions listed in the Checking Achievement sections at the end of each unit. Interview responses revealed that many of these teachers found such questions were either too vague or too subjective to be helpful in assessing student achievement. The following statements illustrate the commonly voiced viewpoints.

> I guess I have looked at those pages [on Checking Achievement] but a lot of them are totally subjective. For example, do children enjoy poetry? I mean how do you check achievement by that I think it is just an opinion . . . . I don't know where you can go with these questions.

> I found the Checking Achievement difficult in the sense that a lot of it was just a matter of me having to remember how each individual had progressed and what maybe they had achieved . . . If anyone had asked for proof I didn't have anything on paper because in Checking Achievement things were not really things that you could test on paper . . . I personally prefer to be more concrete in my evaluation than subjective.

The teachers in group one who were more comfortable with language arts viewed the sections on Checking Achievement a little differently. Many of these teachers indicated that they found such questions to be quite valuable, not only as a focus for evaluation of students' progress in language arts but also for instructional input. This finding would suggest that perhaps it was easier for teachers who felt very comfortable with language arts to incorporate the type of questions outlined in the sections on Checking Achievement in their teaching than it was for teachers who were less comfortable with that subject.

It was further observed in analyzing Table 17 that the teachers in group three who expressed little sense of comfort with the teaching of language arts gave more attention to the evaluation of the reading and writing strands than they did the other language strands. This finding gave further support to the supposition discussed in earlier sections that these teachers appeared to be less comfortable with the areas of speaking and listening than were teachers in group two and especially teachers in group one.

It was also interesting to note that teachers in group two were the only teachers in the study who tended to frequently use workbook pages designated for assessment for a different purpose. Comments made during the interview sessions indicated that many of these teachers found such pages to be quite inappropriate for evaluation purposes and consequently they developed their own evaluation activities. This finding would suggest that a teacher's sense of comfort with language arts is quite likely to influence one's perception of the value of different activities provided in the curriculum.

Adaptations in the Ancillary Materials

Each level of the Expressways Program includes various ancillary materials intended to be used in conjunction with the core materials to further students' achievements in the four language strands. Table 18 lists the significant adaptations which teachers made in certain of these materials. The response "not applicable" appears frequently because of the differences in the materials proposed for each grade level and the fact that not all schools had access to the suggested materials.

As shown in Table 18, teachers in each of the three groups adapted particular instructional strategies or follow-up activities related to the study of a novel, a component of the curriculum provided for grade three, four, and five students. The fact that none of these adaptations were common to all of the three groups suggested that teachers' sense of comfort with the teaching of language arts may have been partially responsible for such changes. Interview responses tended to support this assumption. They revealed that even though teachers in groups one and three both adapted questions or follow-up activities proposed as part of the novel study, the nature of this particular type of adaptation varied between the two groups. When

TABLE 18

ADAPTATIONS IN THE ANCILLARY MATERIALS

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
NOVEL Adapted the questions or follow-up activities suggested to accompany the study of the novel	6 (40%)	1 (7%)	8 (53%)
READING CORNERS Modified the suggested form of presentation (e.g., read the books to them, introduced only one book at a time, did paired reading, arranged a periodic exchange of the books)	5 (33%)	3 (20%)	7 (47%)
PHONICS WORKBOOK Actual use of the phonics workbook	2 (13%)	10 (67%)	3 (20%)
SOUNDING BOARD Actual use of the Sounding Board	1 (7%)	3 (20%)	11 (73%)
GROUP TWO (n=15)			
NOVEL Modified the suggested form of presentation (e.g., read it to the students, put it on tape, read a chapter per day, did partnered reading)	6 (40%)	2 (13%)	7 (47%)
Extended the time frame proposed for completing the novel	5 (33%)	3 (20%)	7 (47%)
PHONICS WORKBOOK Actual use of the phonics workbook	0 (0%)	7 (47%)	8 (53%)
SOUNDING BOARD Actual use of the Sounding Board	1 (7%)	9 (60%)	5 (33%)
GROUP THREE (n=6)			
NOVEL Modified the suggested form of presentation (e.g., read it to the students, put it on tape, read a chapter per day, did partnered reading)	2 (33%)	1 (17%)	3 (50%)
Adapted the questions or follow-up activities suggested to accompany the study of the novel	2 (33%)	1 (17%)	3 (50%)
PHONICS WORKBOOK Actual use of the phonics workbook	0 (0%)	3 (50%)	3 (50%)
SOUNDING BOARD Actual use of the Sounding Board	0 (0%)	3 (50%)	3 (50%)

teachers from group one spoke of changing the questions or activities outlined in the sourcebooks they usually referred to supplementing these suggestions with their own ideas. The following quotations illustrate this point.

> I built in quite a bit. Our novel, A Puli Named Sandor was about a dog and we did a lot of things on dogs. Ah, we tried to recreate our own scenarios of a Mother and what her reaction would be and what not, and [we did] newspaper articles and that kind of thing.
>
> We adapted the suggested questions and activities I would say quite a bit. Ah, we used pretty much the same type of approach to doing the novel as we did the regular language arts program . . . We did a lot of discussions plus exercises that I had made up.

The teachers in group three who did the novel study, however, adapted the corresponding questions and activities in quite a different manner. Interview statements revealed that these individuals tended to omit the majority of such suggestions and to concentrate on the actual reading of the novel. The following excerpt from one of the transcripts reflects the typical attitude of teachers in this group toward this matter.

> What we did is we did the novel at the end of the year. And we had been pushing the students. Again I keep saying this but time really was a factor the whole way through the year, so what we did was read the story and that was it.

These data imply that teachers who felt very comfortable with language arts perhaps found it easier to complete the core component of the curriculum and consequently to incorporate ancillary materials than did teachers who were less comfortable with that subject. This idea was further supported by the fact that teachers in group two extended the time frame proposed for completing the novel even though the developers of the Expressways Program strongly recommend that teachers do not slow down the pace set in the study guide.

A major goal of the novel study is to help students develop habits of sustained silent reading. Consequently teachers are encouraged to allow adequate time for all students to complete the reading of designated sections before beginning follow-up discussions. However, as shown in Table 18, a significant number of teachers in groups two and three modified the proposed format for presenting a novel by reading it to the students, putting it on tape, reading a chapter per day, or doing partnered reading. Interview responses indicated that these individuals believed that the employment of such techniques was essential if all students were to comprehend the story. The majority of the teachers in group one who were involved with the novel study tended to agree with the developers of the curriculum on the value of providing students with sustained reading experiences. In fact one teacher described the use of novels in the following manner.

> It is my belief that about half of your language arts should be based on novels . . . . A four page story doesn't really do much for a child who is trying to learn to read beyond the decoding skills. That is fine for learning to decode but we want to develop ideas and teach children how to develop characters and plots and feelings. I think they should be reading material that develops that for them. So yes, I used the novel and it was, as I said to my regret, that there were not about five other ones to follow.

Only one teacher in this group mentioned that she read the novel to the students, but this was after they had had the opportunity to read it silently.

Another of the ancillary materials of the Expressways Program is the Reading Corners. These are collections of small books which are intended to be used as independent reading material for grade one and two students. Each book corresponds to a unit theme and is to be made available to students when the particular theme is being studied. Table 18 shows that a number of teachers in group one used a variety of ways of presenting such books that were not specified in the curriculum. This occurrence may imply that teachers who were most comfortable with language arts found it easier and perhaps more beneficial to vary the proposed format of the presentation of these materials than did teachers who were less comfortable with the subject.

It was also interesting to note that when teachers were asked about the frequency with which they used the phonics workbooks and the Sounding Boards (a series of suggestions for the structured oral reading of poems and short stories), the majority of the teachers in each of the three groups indicated that they used them only rarely with their students. Interview responses offered a possible explanation for this tendency. Many of the teachers who taught levels of the Expressways Program which included Sounding Boards stated that the primary reason they did not use these materials on a regular basis was that there did not seem to be sufficient time to use them in addition to the core materials. Several teachers also explained that it was virtually impossible to become personally familiar with all the materials included in the Program during the initial years of implementation. The following quotations illustrate these attitudes.

> The Sounding Boards are something that I would like to do more of another year or try to work in more because I like the idea behind them, but there really is not the time.

> I didn't use the [Sounding Board] at all. I just never got to them, or perhaps I should say I just neglected to get to them . . . I felt like I had to keep pushing the children all year long to get through the required material.

> There have been so many new things in the Program this year that I had to get used to that I haven't used the [Sounding Board].

The fact that a considerable number of teachers identified time as a factor which influenced their use of these ancillary materials is consistent with other research findings pertaining to educational change. Fullan (1982), Goodlad, Klein, and Associates (1970), Lieberman (1982), and Lortie (1975) all found that teacners frequently mentioned insufficient time as an obstacle to the implementation of innovations.

The main reason teachers gave for not using the phonics workbook extensively was that few students appeared to need extra practice with phonic elements once they completed the core activities. Even in situations where reinforcement was deemed essential, teachers explained that they often used their own activities. The following quotations are representative of the comments made by teachers in relation to the phonics workbooks.

> I didn't use it . . . I just thought there was enough in the regular workbook. We do exercises on the board if we need to and quite often I use games with them.

> What I try to do is make phonics more of a needs thing because some of them don't need it and the ones who do I try and make sure that they get that extra but I try moreso through whatever they are working on; through their stories and things like that to try and keep a handle on it.

These findings would suggest that teachers are likely to adapt such ancillary materials in the manner described previously regardless of their sense of comfort with language arts.

Adaptations in the Optional Activities

Each level of the Expressways Program provides suggestions for optional activities related to the unit themes that are intended to extend or enrich students' language experiences. Although teachers did not make any significant adaptations in this component of the curriculum, their actual use of such activities revealed a notable finding. Table 19 shows that the more comfortable teachers professed being with the teaching of language arts the more likely they were to use the optional activities outlined in the curriculum. Teachers who experienced little comfort with the subject seemed to prefer to focus on the core activities of the Program.

Adaptations in the Spelling Component

The levels of the Expressways Program designed to be used with grade two and three students have an organized spelling component which includes word lists and a series of related activities for each unit. As shown in Table 20, many teachers tended to supplement the spelling lists provided in the curriculum regardless of ther sense of comfort with the teaching of language arts. One of the major reasons for this adaptation was that a number of school districts had established lists of words which were expected to be taught at certain

TABLE 19

ADAPTATIONS IN THE OPTIONAL ACTIVITIES

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Actual use of optional activities	7 (47%)	8 (53%)	0 (0%)
GROUP TWO (n=15)			
Actual use of optional activities	3 (20%)	12 (80%)	0 (0%)
GROUP THREE (n=6)			
Actual use of optional activities	0 (0%)	6 (100%)	0 (0%)

TABLE 20

ADAPTATIONS IN THE SPELLING COMPONENT

	Almost Always /Freq.	Occas./ Almost Never	Not Appli.
GROUP ONE (n=15)			
Supplemented the Expressways spelling lists with other words (e.g., CRT words, holiday words, special words such as months, days of the week, etc.)	5 (33%)	3 (20%)	7 (47%)
Adapted proposed instructional approaches (e.g., varied the number of particular combination of words introduced simultaneously, modified pretest/posttest format)	5 (33%)	3 (20%)	7 (47%)
Supplemented activities provided to reinforce the spelling of suggested words (e.g., developed activities or games, chose exercises from other sources)	6 (40%)	2 (13%)	7 (47%)
GROUP TWO (n=15)			
Supplemented the Expressways spelling lists with other words (e.g., CRT words, holiday words, special words such as months, days of the week, etc.)	5 (33%)	1 (7%)	9 (60%)
Adapted proposed instructional approaches (e.g., varied the number of particular combination of words introduced simultaneously, modified pretest/posttest format)	4 (27%)	2 (13%)	9 (60%)
GROUP THREE (n=6)			
Supplemented the Expressways spelling lists with other words (e.g., CRT words, holiday words, special words such as months, days of the week, etc.)	2 (33%)	1 (17%)	3 (50%)
Adapted proposed instructional approaches (e.g., varied the number of particular combination of words introduced simultaneously, modified pretest/posttest format)	2 (33%)	1 (17%)	3 (50%)

grade levels. In addition, some individuals explained that they felt it was beneficial to include special words, such as months, days of the week, and holidays, or words that were of interest to their students.

Teachers in each of the three groups also made adaptations in the instructional approaches recommended in the Spelling Program. One of the most common of these was to divide the spelling words suggested for each unit into weekly lists. A number of teachers also modified the test-study-test approach by omitting the initial pretest. The following quotations are representative of the statements teachers made in reference to such adaptations.

> I find that I don't do it just exactly the way they do it. I don't introduce the whole group of words at one point in time . . . I divide them so that we can have spelling weeks and I find that is just easier for me and easier for the children.
>
> Like I was saying, very often we broke it up into word lists and did it weekly . . . . Like we didn't just present, say there were fifteen words for a theme, we wouldn't just present those words at the beginning of the theme and work on them through the theme until the end. We took the lists and divided them into so many words per week and did it that way. I am very comfortable with that.

The fact that most teachers adapted suggested instructional procedures in the manner described previously is consistent with the findings of many studies done in the area of spelling. Thomas (1979, p. 58) reports that the study-test method has dominated the teaching of spelling for a number of years and continues to be practiced in many classrooms today. In most cases this means that teachers introduce a new list of words on Monday, have students study and do related exercises on subsequent days of the week, and then do a final test on Friday.

Further examination of Table 20 showed that supplementing activities provided to reinforce the spelling of suggested words was an adaptation unique to teachers in group one. This finding would imply that teachers who were very comfortable with the teaching of language arts may have found it easier to develop additional exercises than did teachers who were less comfortable with the subject.

Summary of Conclusions Related to Curriculum Adaptations

Several conclusions were indicated by the findings of the interviews and the questionnaires in relation to the adaptations which teachers made in the Expressways Program. This section is a summary of these tendencies.

1. Teachers in all three groups made certain adaptations in the Expressways Program that tended to be motivated by external factors rather than teachers' sense of comfort with language arts.

   (a) Many teachers changed the particular levels or number of levels intended to be completed by each of the grades at the elementary school level, as well as the subjective type of evaluation activities that were proposed in the curriculum because of school district directives.

   (b) Student interest and relevancy also seemed to be related to a number of adaptations made by all teachers. Adjusting the amount of time spent on a particular unit or including more meaningful topics for written compositions were typical examples of such adaptations.

2. The teachers who professed being most comfortable with the teaching of language arts were more inclined to depart from the curriculum than were teachers who experienced less comfort with that subject area. These individuals indicated that they felt quite confident about supplementing the different language strands with self-developed activities. Some examples of these adaptations of a supplementary nature were providing additional stories to reinforce reading comprehension, substituting reading materials, and expanding listening objectives.

3. The major adaptations made by teachers in group two, who felt a moderate sense of comfort with the teaching of language arts, was to vary the attention suggested for particular aspects of the curriculum. They frequently stressed those activities or strategies with which they were most comfortable. Consequently, students did not always have the variety of experiences intended by the developers of the Program to foster growth in each of the different language strands. Prioritizing word attack skills, emphasizing certain writing objectives, and stressing the reading and writing strands were representative of this kind of adaptation.

4. The teachers in group three, who experienced little comfort with the teaching of language arts, tended to be less faithful to the major goals proposed in the Expressways Program than were teachers who felt more comfortable with the subject. Instead of integrating the curriculum in other subject areas with the language arts curriculum, they taught each subject as a separate component. They also made minimal provision for needs grouping after a concept or skill had been introduced to the class as a whole, a strategy that the developers of

the Program felt was essential to maximum student progress. Interview responses indicated, however, that had the teachers in this group felt more confident about implementing these particular goals they would not have made such adaptations.

Similarly these teachers tended to adapt those instructional strategies which they did not feel especially comfortable using with their students. For example, instead of having students edit their compositions with a partner or as a group, teachers would sometimes do the corrections or have the child do them individually. These were techniques they felt comfortable employing.

5. The teachers in groups two and three also supplemented some areas of the Expressways Program. These adaptations were not nearly as numerous or as original in nature, however, as were similar adaptations made by teachers in group one.

6. Although teachers did not make any significant adaptations in the optional activities outlined in the Expressways Program, it was interesting to note that such activities were used primarily by teachers who felt very comfortable with the teaching of language arts.

Reasons for Adapting the Expressways Program

Studies designed to investigate the implementation of educational innovations have disclosed numerous factors which tend to influence the degree to which a change effort is actually implemented (Fullan & Pomfret, 1977). Although such factors are frequently identified as determinants of implementation, it seems equally appropriate to describe them as reasons for adaptation, since failure to be faithful to the developer's intentions automatically implies adaptation.

Part of the purpose of this study was to identify the reasons which motivated teachers to adapt different aspects of the Expressways Program and to investigate possible relationships between these reasons and the concerns which teachers experienced during the implementation of the curriculum. Therefore, during the interview sessions teachers were asked to explain the reasons for the adaptations which they made in the curriculum. These data were then used to develop a questionnaire which required teachers to rank order a minimum of one and a maximum of five reasons according to their degree of influence on adaptations.

The decision to focus on possible relationships between concerns developed **during** the implementation of the Expressways Program and reasons given for adaptations, as opposed to including concerns which existed **prior** to the implementation of the curriculum was based primarily on the findings of implementation studies conducted by Hall and Loucks (1978) and Hall, Loucks, Rutherford, and Newlove (1975). They found that the concerns teachers experienced prior to actually using an innovation usually centred on the general characteristics, effects, and requirements for use of the innovation, while the concerns which they developed during implementation were more likely to focus on the processes and tasks of using the innovation as well as its impact on students. Since the latter concerns tended to be more specific in nature, the researcher believed that there was a much greater chance that they would be related to reasons for adapting an innovation. Also, if concerns experienced prior to implementation were strong enough to influence teachers' decisions to adapt an innovation, it would seem unlikely that they would simply dissipate as teachers began using the innovation. Consequently, teachers would tend to mention them again as concerns experienced during implementation.

Table 21 displays the various reasons which teachers gave for adapting different components of the Expressways Program as well as the frequency with which these factors were selected on the questionnaire. The reasons are not listed in the same order in which they appeared on the questionnaire (Appendix G) as they were grouped after data collection to facilitate their comparison with implementation concerns. Due to the fact that the foundation of many of the implementation concerns and reasons for adaptations were comparable in nature, it was possible to use similar categories for sorting many of these data. Only two new categories had to be developed to accommodate all of the reasons cited for adapting the Expressways Program. Specific criteria were established for determining inclusion of reasons within each category.

Personal-Related: Concerned with an individual teacher's personal background, ability, knowledge, preferences, and beliefs

Curriculum-Related: Concerned with **what** was to be taught in the curriculum

Instruction-Related: Concerned with **how** something was taught in the curriculum, including instructional materials, and instructional strategies

TABLE 21

SUMMARY OF ALL REASONS GIVEN FOR ADAPTING THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GROUP 1 n=15	GROUP 2 n=15	GROUP 3 n=6	TOTAL
PERSONAL-RELATED				
Personal beliefs about teaching (e.g., effective teaching strategies, curricular integration, assessment of student progress)	10 (67%)	5 (33%)	2 (33%)	17 (47%)
Personal sense of comfort with or preference for different aspects of the Expressways Program (e.g., did not feel comfortable teaching phonics, did not like group stories, preferred objective evaluation over subjective evaluation)	2 (13%)	4 (27%)	1 (17%)	7 (19%)
Perceived value of various aspects of the Expressways Program (e.g., assessment pages in workbook were too teacher-directed, children gained nothing from certain activities)	0 (0%)	2 (13%)	1 (17%)	3 (8%)
Personal familiarity with particular methodologies or approaches suggested by the Expressways Program	1 (7%)	1 (7%)	1 (17%)	1 (8%)
Personal awareness of all the materials developed to be used as part of the Expressways Program	1 (7%)	0 (0%)	0 (0%)	1 (3%)
CURRICULUM-RELATED				
Inconsistencies between district or school language arts program and the Expressways Program (e.g., differences in objectives or in the emphasis on language strands)	3 (20%)	4 (27%)	1 (17%)	8 (22%)
Established curricula in other areas	0 (0%)	0 (0%)	0 (0%)	0 (0%)
INSTRUCTION-RELATED				
Sufficiency of activities to ensure mastery of skills or concepts outlined in the objectives (e.g., supplemented certain activities, omitted unnecessary repetition of activities, provided follow-up activities)	7 (47%)	8 (53%)	2 (33%)	17 (47%)
Instructional grouping arrangement (e.g., two grades in one classroom, class size, defined groups within one grade level)	4 (27%)	4 (27%)	1 (17%)	9 (25%)
Availability of instructional materials (e.g., additional reading materials related to the themes, a class set of materials to be shared by several classrooms)	4 (27%)	4 (27%)	0 (0%)	8 (22%)
The influence of strategies, activities, or programs that were used or worked well in the past	4 (27%)	2 (13%)	2 (33%)	8 (22%)
The desire to facilitate different aspects of the teaching process (e.g., easier to combine themes, quicker to check off mastery of objectives than doing anecdotal records)	2 (13%)	4 (27%)	0 (0%)	6 (17%)
Physical design of instructional materials (e.g., size, durability)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

TABLE 21
(continued)

SUMMARY OF ALL REASONS GIVEN FOR ADAPTING THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GROUP 1 n=15	GROUP 2 n=15	GROUP 3 n=6	TOTAL
STUDENT-RELATED				
The degree of interest or enjoyment created by different aspects of the Expressways Program or the relevancy of such aspects to the students (e.g., changed topics to ones that interest students, stressed themes students liked, added questions relevant to students)	6 (40%)	7 (47%)	1 (17%)	14 (39%)
The incongruency of different aspects of the Expressways Program with students' abilities or established needs (e.g., unsuitable length for a reading selection, reading level was too advanced, directions were far too complicated)	5 (33%)	5 (33%)	1 (17%)	11 (31%)
The need for feedback on students' progress (e.g., needed concrete assessment for reporting sessions, accountable to administration for students' progress)	3 (20%)	2 (13%)	4 (67%)	9 (25%)
Children's personal feelings (e.g., confidence, shyness, ego)	0 (0%)	1 (7%)	0 (0%)	1 (3%)
ADVICE-RELATED				
Advice of personnel who had worked with Expressways prior to my attempted implementation (e.g., teachers who had piloted the Program or teachers who had begun the Program at an earlier grade level)	2 (13%)	1 (7%)	2 (33%)	5 (14%)
ORGANIZATION-RELATED				
Feeling pressed to complete the language arts curriculum within the allotted instructional time	2 (13%)	4 (27%)	1 (17%)	7 (19%)
Availability of preparational time or the amount of time required to prepare certain aspects of the Expressways Program (e.g., there was not time to find extra reading materials, independent activities took too long to prepare)	2 (13%)	1 (7%)	0 (0%)	3 (8%)
Expectations of succeeding grade levels (e.g., knew they would have to do it in the next grade, it was good preparation for future objectives)	1 (7%)	1 (7%)	2 (33%)	4 (11%)
Scheduling circumstances (e.g., different teachers taught the same students, or definite times were scheduled for specific subjects)	2 (13%)	0 (0%)	0 (0%)	2 (6%)
Physical setting (e.g., open classroom area, no space for independent activities)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Student-Related:	Concerned with students' interests, abilities, progress, and feelings
Advice-Related:	Concerned with advice received from people who had worked with Expressways Program
Organization-Related:	Concerned with the organization of the school systems in which the teachers were employed

It was interesting to note that various aspects of the organization of the different school systems appeared to essentially prevent a small proportion of the teachers from implementing the curriculum according to the developers' intents. This seemed particularly significant considering that other teachers working in the same districts under similar circumstances did not appear to view such factors in the same manner.

A comparison of the kinds of concerns teachers experienced during the implementation of the Expressways Program with the kinds of reasons individuals stated were responsible for adaptations they made in this curriculum suggested a possible relationship between these variables. The data presented earlier in Table 9 established that a significant number of the concerns teachers developed when attempting to implement the Expressways Program were either instructional or student-related concerns. A similar pattern was apparent in the reasons teachers gave for adapting the curriculum. As shown in Table 21, the reasons labelled as instruction or student-related tended to be among those most frequently selected by teachers.

Further examination of the actual concerns and reasons grouped within each of the defined categories, however, showed that there were only a few instances where specific implementation concerns actually corresponded to reasons identified as underlying curricular adaptations. One example of such a relationship dealt with the idea of supplementing various aspects of the curriculum. Data collected with respect to implementation concerns showed that 12 (33%) of the teachers in the study were worried that there were not sufficient activities provided in the Expressways Program to fully develop or reinforce particular skills or concepts which were proposed to be taught. The results of the questionnaire which focused on reasons teachers gave for adapting the curriculum concurred with this finding. As indicated in Table 21, 17 (47%) of the teachers identified sufficiency of activities to ensure mastery of skills or concepts outlined in the objectives as influencing curricular adaptations. Analysis of the total rankings of reasons given for adapting the Expressways Program, however, indicated that the reason related to sufficiency of activities was not quite as important to teachers in group three as it was to teachers who felt more comfortable with language arts.

A significant number of teachers in each of the three groups identified the whole group instructional approach proposed in the Expressways Program as a major source of concern during the implementation of the curriculum. Although this grouping arrangement was not selected as frequently by teachers as a reason for adaptations, the fact that it was chosen by nine (25%) of the participants would suggest that this concern did cause some adaptations in the curriculum. Once again, however, the relationship tended to be more predominant with teachers in groups one and two. As shown in Table 21, only one teacher in group three selected the instructional grouping arrangement as a reason for adapting the curriculum as compared with four individuals in each of the other groups.

The results of the questionnaire which focused on concerns teachers experienced during the implementation of the Expressways Program indicated that five (33%) of the teachers in group one and six (40%) of the teachers in group two identified being concerned about the amount and level of difficulty of vocabulary found in the new curriculum. Seven individuals in these two groups also stated that they were worried about the overall level of difficulty of the Expressways Program and its ultimate effectiveness with students of varying abilities. The idea that these particular concerns possibly motivated adaptations in the curriculum was supported by the fact that five (33%) of the teachers in both groups one and two selected the incongruency of different aspects of the Expressways Program with students' needs or abilities as a basis for making related changes.

There were a limited number of cases where particular implementation concerns and reasons for adaptations shared a similar focus but differed considerably in the frequency with which they were identified by teachers. For example, data presented in previous sections established that 11 (31%) of the teachers were concerned about the evaluation component of the Expressways Program as they attempted to implement the curriculum. In fact, analyses of the rankings of implementation concerns indicated that this concern was always in one of the top five positions when compared with all of the concerns identified by the teachers in groups one and two. The findings displayed in Table 21, however, show that the teachers in groups one and two did not consider the need for feedback on students' progress to have a significiant influence on the adaptations which they made in the Expressways Program. In contrast, the teachers in group three, who had not been as concerned about this aspect of the curriculum during implementation, identified it as being one of the major reasons underlying some of their curricular adaptations.

A similar pattern was noted with respect to the pace at which one should move through the various levels of the Expressways Program. The results of the questionnaire which dealt with concerns experienced during the implementation of the language arts curriculum indicated that 17 (47%) of the teachers were anxious about this matter. The idea of feeling pressed to complete the language arts curriculum within an allotted instructional time, however, was identified by only seven (19%) of the teachers as a reason which influenced them to adapt the Expressways Program. The significant difference in the frequency with which these variables were selected would suggest that there was little connection between them.

The finding that there was not a strong relationship between implementation concerns and curricular adaptations may imply that some of the teachers' concerns were ill-founded and that once they began working with the curriculum these concerns tended to disappear. Such concerns could have been ill-founded initially because of teachers' past experiences with change efforts. Based on an extensive review of implementation studies, Fullan (1982) claims that a school district's history of innovative attempts is a crucial factor in determining the extent to which an innovation is implemented. He states that

> the more the teachers or others have had negative experiences with previous implementation attempts in the district or elsewhere, the more cynical or apathetic they will be about the next change presented regardless or the merit or the new idea or program. (p. 63)

In view of this finding, the possibility exists that, if some of the teachers in this study had indeed felt pressed to implement a former curriculum or had experienced difficulties with the evaluation component of a new program, they would have been concerned about these aspects during the implementation of the Expressways Program.

The weakness of the relationship between implementation concerns and adaptations may also be explained by the possibility that the reasons which teachers cited as motivating their adaptations were not the sole or actual causes of such adaptations. This speculation is consistent with the findings of Goodlad, Klein, and Associates' (1970) study which attempted to determine the degree to which innovative educational ideas existed in practice. These researchers discovered that what teachers perceived they were doing often was not congruent with their actions. For example, they visited some schools which claimed to be non-graded and yet observed many instances of homogeneous grouping. The teachers in this study may have believed that they adapted certain aspects of the Expressways Program because of particular reasons, when in actuality such changes were motivated by other factors.

A reverse type of situation than previously discussed existed between the implementation concern and reason for adaptation which focused on the inconsistencies between the district or school language arts program and the Expressways Program. Only two teachers from the three groups indicated that they were concerned about this difference as they attempted to implement the curriculum. In contrast, however, eight (22%) of the teachers stated that it caused them to make certain curricular adaptations.

There were a number of reasons which prompted teachers to adapt the Expressways Program that were not directly related to implementation concerns. Examination of Table 21 revealed that the actual influence of some of these reasons tended to vary considerably among the three groups. This was particularly true of the reason which dealt with personal beliefs about teaching. As shown in Table 21, it was selected significantly more often by teachers in group one, who professed being most comfortable with language arts, than it was by individuals in either of the other two groups. Table 22 indicates the reasons for adapting the Expressways Program which teachers ranked in the number one position on the questionnaire. The fact that six (40%) of the teachers in group one identified personal beliefs about teaching as the primary cause of many adaptations further emphasizes the tremendous impact that this factor had on the decisions which teachers in this group made pertaining to changes in the curriculum. Analyses of the total rankings of the reasons for adapting the Expressways Program completed by group one also showed that personal beliefs about teaching were consistently in the first place position.

As shown in Table 21, nearly half of the teachers in groups one and two indicated that they adapted different aspects of the Expressways Program if they did not seem to be particularly

TABLE 22

FIRST-RANKED REASONS FOR ADAPTING THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GROUP 1 n=15	GROUP 2 n=15	GROUP 3 n=6	TOTAL
PERSONAL-RELATED				
Personal beliefs about teaching (e.g., effective teaching strategies, curricular integration, assessment of student progress)	6 (40%)	1 (7%)	0 (0%)	7 (19%)
Personal sense of comfort with or preference for different aspects of the Expressways Program (e.g., did not feel comfortable teaching phonics, did not like group stories, preferred objective evaluation over subjective evaluation)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Perceived value of various aspects of the Expressways Program (e.g., assessment pages in workbook were too teacher-directed, children gained nothing from certain activities)	0 (0%)	2 (13%)	0 (0%)	2 (6%)
Personal familiarity with particular methodologies or approaches suggested by the Expressways Program	0 (0%)	0 (0%)	1 (17%)	1 (3%)
Personal awareness of all the materials developed to be used as part of the Expressways Program	0 (0%)	0 (0%)	0 (0%)	0 (0%)
CURRICULUM-RELATED				
Inconsistencies between district or school language arts program and the Expressways Program (e.g., differences in objectives or in the emphasis on language strands)	1 (7%)	2 (13%)	0 (0%)	3 (8%)
Established curricula in other areas	0 (0%)	0 (0%)	0 (0%)	0 (0%)
INSTRUCTION-RELATED				
Sufficiency of activities to ensure mastery of skills or concepts outlined in the objectives (e.g., supplemented certain activities, omitted unnecessary repetition of activities, provided follow-up activities)	1 (7%)	2 (13%)	0 (0%)	3 (8%)
Instructional grouping arrangement (e.g., two grades in one classroom, class size, defined groups within one grade level)	2 (13%)	3 (20%)	0 (0%)	5 (14%)
Availability of instructional materials (e.g., additional reading materials related to the themes, a class set of materials to be shared by several classrooms)	1 (7%)	2 (13%)	0 (0%)	3 (8%)
The influence of strategies, activities, or programs that were used or worked well in the past	1 (7%)	0 (0%)	1 (17%)	2 (6%)
The desire to facilitate different aspects of the teaching process (e.g., easier to combine themes, quicker to check off mastery of objectives than doing anecdotal records)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Physical design of instructional materials (e.g., size, durability)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

TABLE 22
(continued)

FIRST-RANKED REASONS FOR ADAPTING THE EXPRESSWAYS PROGRAM

	FREQUENCY OF RESPONSES			
	GROUP 1 n=15	GROUP 2 n=15	GROUP 3 n=6	TOTAL
STUDENT-RELATED				
The degree of interest or enjoyment created by different aspects of the Expressways Program or the relevancy of such aspects to the students (e.g., changed topics to ones that interest students, stressed themes students liked, added questions relevant to students)	0 (0%)	3 (20%)	0 (0%)	3 (8%)
The incongruency of different aspects of the Expressways Program with students' abilities or established needs (e.g., unsuitable length for a reading selection, reading level was too advanced, directions were far too complicated)	2 (13%)	0 (0%)	0 (0%)	2 (6%)
The need for feedback on students' progress (e.g., needed concrete assessment for reporting sessions, accountable to administration for students' progress)	0 (0%)	0 (0%)	2 (17%)	2 (6%)
Children's personal feelings (e.g., confidence, shyness, ego)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
ADVICE-RELATED				
Advice of personnel who had worked with Expressways prior to my attempted implementation (e.g., teachers who had piloted the Program or teachers who had begun the Program at an earlier grade level)	1 (7%)	0 (0%)	2 (33%)	3 (8%)
ORGANIZATION-RELATED				
Feeling pressed to complete the language arts curriculum within the allotted instructional time	0 (0%)	1 (7%)	0 (0%)	1 (3%)
Availability of preparational time or the amount of time required to prepare certain aspects of the Expressways Program (e.g., there was not time to find extra reading materials, independent activities took too long to prepare)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Expectations of succeeding grade levels (e.g., knew they would have to do it in the next grade, it was good preparation for future objectives)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Scheduling circumstances (e.g., different teachers taught the same students, or definite times were scheduled for specific subjects)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Physical setting (e.g., open classroom area, no space for independent activities)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

interesting or relevant to their students. Although this reason for adaptations appeared to be equally important to these two groups of teachers, analyses of the total rankings of the various reasons outlined on the questionnaire revealed that teachers in group two believed this factor to be more influential than did teachers in group one. Since the teachers in group two were less comfortable with the teaching of language arts than were the teachers in group one, it is possible that these individuals may have felt a greater need to be successful with the implementation of the Expressways Program. Ensuring that students found the different components of the curriculum to be interesting and meaningful may have been a viable way of achieving this sense of success.

The fact that the degree of interest or enjoyment created by different aspects of the Expressways Program or the relevancy of such aspects to the students had an especially strong impact on the decisions made by teachers in group two to adapt the curriculum was further supported by the data in Table 22. They showed that three (20%) of the teachers in group two ranked this factor in the first-place position of importance as compared with no one from the other two groups.

As mentioned previously, the need for feedback on students' progress appeared to be the main reason why teachers in group three made adaptations in the Expressways Program. The summary of the results of the questionnaire and the analyses of the rankings, however, suggested that group three individuals also based a number of their decisions to adapt certain aspects of the curriculum on advice they received from other personnel who had worked with the curriculum and on past experiences with particular strategies, activities, or other language arts programs. This finding is hardly surprising in view of the fact that these teachers experienced little sense of comfort with the teaching of language arts.

Summary of Conclusions Related to Reasons for Adapting the Expressways Program

Several conclusions were drawn regarding the nature of the reasons teachers gave for adapting certain aspects of the Expressways Program as well as the relationship of these reasons to implementation concerns.

1. Many of the concerns teachers experienced during the implementation of the Expressways Program and the reasons which motivated them to adapt different aspects of the curriculum shared common origins. Consequently similar categories could be used for grouping many of these data.

2. The concerns teachers developed most frequently as they attempted to implement the Expressways Program tended to be instructional and student-related. This pattern was also apparent in the reasons identified for adapting the curriculum. Many of the adaptations that teachers indicated making in the Expressways Program were based on reasons that were either instruction or student-related.

3. Although a considerable number of implementation concerns and reasons for adaptations had similar foundations, only a few of these variables actually corresponded in terms of specificity. Among the cases where such agreement was evident, there were just three

where a significant relationship between the implementation concern and the reason for adapting the Expressways Program seemed to exist. The concerns which concentrated on the degree to which the curriculum would have to be supplemented, the whole group instructional approach, and the difficulty level of the Program appeared to have had a fairly strong impact on teachers' decisions to adapt certain aspects of the new language arts curriculum. The strength of these relationships, however, tended to be greater with teachers in groups one and two than it was with teachers in group three.

4. Teachers made many adaptations in the Expressways Program because of reasons that were not directly related to concerns which they had experienced during the implementation of the curriculum. These reasons tended to vary considerably among the three groups.

(a) Teachers who were very comfortable with the teaching of language arts were more likely to base curricular adaptations on their personal beliefs about teaching.

(b) Although teachers from all three groups indicated that they based some adaptations on students' interests and enjoyment, this reason seemed to be of primary importance to teachers in group two.

(c) Teachers in group three, who experienced minimal comfort with the teaching of language arts, tended to be strongly influenced by the need for feedback on students' progress when deciding whether to adapt certain aspects of the Expressways Program. Many of the adaptations which these teachers made in the curriculum were also motivated by advice they received from other teachers who had worked with the Expressways Program and their own past experiences with particular activities, strategies, or language arts programs. These factors were not as influential, however, as the reason related to evaluation.

Summary

This chapter has reported the data which originated from the interview sessions and the related questionnaires both in text and tabular form. The findings were discussed in relation to the questions which guided the research and conclusions were summarized at the end of each major section.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is divided into three sections. The first section outlines the research problem and summarizes the methodology which was used to investigate the problem. Major conclusions drawn from the study findings are presented in the second section. The final section contains recommendations for teacher in-service in conjunction with the implementation of curricula, for teacher education, for staff development, and for curriculum development, as well as recommendations for further research.

Summary of the Research Problem and Methodology

Numerous studies have investigated the implementation of educational innovations in an attempt to identify the factors and conditions which facilitate the faithful use of such innovations. However, little has been done to discern the ways in which teachers adapt new approaches or programs to suit their own teaching situations. This study was, therefore, undertaken to learn about the different ways teachers adapt a new curriculum and their reasons for making such adaptations. Another purpose of the study was to investigate the effect that a teacher's sense of comfort with the teaching of a subject could have on such adaptations and implementation concerns, an aspect which the literature reveals has not been studied in relation to the change process. Four questions were formulated which served as a guide for the research.

1. Where does a teacher's sense of comfort with the teaching of a subject area originate?

2. Is there a relationship between teachers' sense of comfort with a subject area and the concerns that they experience about implementing a new curriculum in the same subject area?

3. Is there a relationship between teachers' sense of comfort with a subject area and the kinds of adaptations that they make in a new curriculum in the same subject area?

4. Is there a relationship between teachers' reasons for adapting a new curriculum and the concerns they experience during the actual implementation of the curriculum?

The study sample was comprised of thirty-six elementary classroom teachers who had been using the Expressways Language Arts Program for at least one year at the grade one, two, three, four, or five levels in four rural school districts in western New Brunswick. This Program was chosen as a frame of reference for collecting the data since it was in the early phrases of implementation in elementary schools throughout New Brunswick and it represented a major change in the language arts curriculum in terms of philosophy, approach, and content.

Participants in the study were also selected on the basis of their professed sense of comfort with the teaching of language arts. This was determined by having all teachers in the population from which the sample was drawn complete a five-point sense of comfort continuum (Appendix A) with respect to eight basic elementary subjects. The results of this survey showed that the majority of the teachers tended to feel quite comfortable with language arts. In fact, only six teachers who were using the Expressways Program placed this subject on either the third or fourth point on the continuum toward the end labelled less comfortable. Consequently, all of these individuals were asked to participate in the study to allow for a greater comparison with respect to sense of comfort. They formed group three in the study sample. The distribution of responses on the first two points on the continuum permitted the other two groups in the study to be randomly selected. Group one was composed of 15 teachers who professed being very comfortable with language arts, while group two was made up of 15 teachers who placed this subject on the second point on the continuum.

Data were gathered in two steps. First, personal interviews were held with each of the 36 teachers in the study sample. These interviews were highly standardized in format in that the researcher followed an interview schedule which had been developed and revised after considerable pilot testing (Appendix B). Probing questions were used only if a response seemed incomplete or the researcher was unsure of the intended meaning.

The second step of the data collection involved transcribing each of the interviews verbatim and then using the data gained with respect to the research questions to develop related questionnaires (Appendices C-G). The questionnaires were designed to determine the relative importance of factors cited as contributing to sense of comfort with language arts, implementation concerns, and reasons for adaptations, as well as the frequency with which teachers adapted particular aspects of the curriculum.

Copies of the questionnaires were sent to all 36 teachers in the study sample, along with specific instructions to facilitate their completion. Teachers were also provided with a copy of their interview transcripts to give them an opportunity of clarifying a response if they felt it was necessary or of supplying any additional information which they considered was relevant to the study. Approximately two weeks after the questionnaires were delivered, the researcher met with each teacher in the study to discuss any questions which had possibly arisen in relation to the questionnaires or changes which may have been made in the interview transcript.

The data gathered through the questionnaires in relation to each of the research questions were reported and discussed in Chapter IV. Interview responses were used to support or further clarify any patterns or tendencies indicated by these data.

Conclusions Based on the Study Findings

The conclusions which were drawn from the study findings were summarized at the end of each major section in Chapter IV. In this chapter, these conclusions are presented in two slightly different formats. First, they are organized and discussed around the stated research questions. Second, they are presented through profiles which describe each of the three groups of teachers who expressed a different degree of comfort with the teaching of language arts.

Conclusions to the Research Questions

The conclusions related to the four research questions presented in Chapter I are contained in this section.

Question 1. Where does a teacher's sense of comfort with the teaching of a subject area originate?

Teachers attributed their sense of comfort with the teaching of language arts to a variety of factors. The factors identified as being most responsible for this feeling, however, tended to be those which were highly personal in nature. Within this particular category were several factors which teachers indicated as being most influential. They included genuine interest in the subject, the enjoyment derived from various aspects of the subject, teaching experience, educational background, and personal experiences.

Although student-related factors influenced teachers' sense of comfort with language arts significantly less than did personal factors, there were two factors in this category which teachers considered to be relatively important. These dealt with the degree of importance attributed to a child's success in language art and the pleasure derived from observing student progress in this subject. Factors originating because of instructional or curricular aspects were viewed by teachers as contributing the least to their sense of comfort with language arts.

The more comfortable teachers felt with the teaching of language arts, the greater were the number of factors they usually identified as being responsible for this feeling. In contrast, those who experienced little comfort with the subject usually cited factors which contributed to their sense of discomfort.

Question 2. Is there a relationship between teachers' sense of comfort with a subject area and the concerns that they experience about implementing a new curriculum in the same subject area?

Teachers' sense of comfort with language arts did seem to influence the concerns they developed about the implementation of the Expressways Program. This relationship appeared to be stronger, however, in the initial phase of the change process before teachers actually began using the curriculum in their classroom situations. At this stage of implementation, teachers who felt very comfortable with language arts experienced relatively few concerns. The reaction of teachers who were less comfortable with the subject was quite different. As sense of comfort decreased, individuals' concerns about the proposed implementation of the Expressways Program tended to become considerably more numerous and intense in nature. Although the concerns which teachers developed at this time were fairly diverse, those identified most frequently were usually personal, instructional, or related to support for teachers.

When teachers began using the new curriculum, their concerns generally increased in number and in specificity. This tendency was particularly evident with teachers who professed being very comfortable with language arts since they had experienced so few concerns prior to implementation. Despite the fairly large increase in the number of concerns voiced by this group, their concerns still tended to be fewer and less intense than those developed by teachers who felt less comfortable with language arts. The concerns which seemed most important to teachers at this stage of implementation were generally instructional, assessment, or student-related. Individuals in groups two and three, who felt less comfortable with the teaching of language arts, however, were also deeply concerned about the lack of organized in-service provided by district office to assist with the implementation of the Expressways Program.

Question 3. Is there a relationship between teachers' sense of comfort with a subject area and the kinds of adaptations that they make in a new curriculum in the same subject area?

Teachers' sense of comfort with the teaching of language arts appeared to be related to some of the adaptations they made in the Expressways Program. Individuals who were very comfortable with the subject often departed from the curriculum by supplementing the activities, strategies, or objectives proposed by its developers. As sense of comfort decreased, there was less evidence of this type of adaptation and teachers seemed to rely more on the suggestions provided by the curriculum.

The teachers who felt only moderately comfortable with language arts tended to adapt the new curriculum in yet another way. Frequently, they emphasized the activities, strategies, or the goals with which they felt most confident and gave minimal attention to those with which they did not feel as secure.

Participants in the study who expressed little comfort with language arts adapted some of the major goals outlined in the Expressways Program because they felt they lacked sufficient knowledge or skills necessary to implement them effectively. These teachers also had a tendency to change instructional strategies to ones which they considered they were more adept at employing.

There were a number of adaptations that teachers made in the curriculum which did not appear to be directly related to their sense of comfort with language arts. Modifying the ways proposed for assessing student progress and the rate suggested for progressing through the different levels of the curriculum were examples of such adaptations. The primary factor responsible for these sorts of changes tended to be district office directives. Another kind of adaptation that seemed to be made by teachers, regardless of their sense of comfort with language arts, was changes in stories, topics for written compositions, and comprehension questions to make them more meaningful and consequently more interesting for students.

Question 4. Is there a relationship between teachers' reasons for adapting a new curriculum and the concerns they experience during the actual implementation of the curriculum?

There was not a strong relationship between teachers' implementation concerns and the subsequent adaptations which they made in the Expressways Program. Although many of the concerns which teachers experienced while implementing the Expressways Program and the reasons they gave for adapting this curriculum tended to originate because of instruction or student-related matters, only a few of these variables actually corresponded in terms of specificity. In fact, there were just three implementation concerns which seemed to have a significant impact on teachers' decisions to adapt the new curriculum. These dealt with the degree to which the curriculum would need to be supplemented, the whole group instructional approach, and the difficulty level of the Expressways Program.

A number of the reasons which teachers gave for adapting the curriculum did not appear to be related to personal implementation concerns. The importance of many of these reasons, however, did tend to vary among the three groups who expressed having different degrees of comfort with language arts. Teachers who were very comfortable with the subject based many of their curricular adaptations on personal beliefs about teaching, whereas students' interests and enjoyment seemed to motivate many of the adaptations made by group two teachers. The key factor for teachers who experienced minimal comfort with language arts was the need for feedback on students' progress.

Profiles of the Three Groups of Teachers

The following profiles of the three groups of teachers who experienced unique degrees of comfort with language arts present a slightly different perspective on the conclusions based on study findings. Each profile attempts to provide the reader with an image of the typical teacher from that particular group by giving specific details in relation to factors responsible for sense of comfort, implementation concerns, and curriculum adaptations.

Profile of Teachers In Group One. The teachers in group one professed being very comfortable with the teaching of language arts. Most of this sense of comfort they attributed to factors which were related to their personal backgrounds. The most influential of these tended to be the actual enjoyment which they derived from reading and writing and the genuine interest they had in language arts. The importance of a child succeeding in this subject and the pleasure derived from assisting in or observing such achievements were two other variables which these teachers believed made significant contributions to their sense of comfort. Many of the individuals in this group also felt that personally initiated professional development and participation in organized activities of this nature helped them to feel more comfortable with language arts.

When teachers in group one learned about the intended implementation of the Expressways Program, the majority of the individuals experienced either no concerns or very minor ones about the planned change effort. Those concerns which were voiced most frequently addressed the insufficient amount of in-service provided prior to the implementation of the Expressways Program, the degree to which the curriculum would have to be supplemented, and the congruency which would exist between the teacher's personal philosophy about language arts and student learning and that which was underlying the Expressways Program.

As teachers in group one attempted to implement the language arts curriculum, their concerns tended to increase in number and in specificity. Many of these teachers actually began to question various instructional and student-related aspects of the Expressways Program, such as the effectiveness of the suggested whole group approach, the quality of the evaluation component, and the general difficulty level of the curriculum. There was no real indication, however, that teachers were worried about their own personal adequacy to implement these strategies or activities.

Teachers who experienced a high sense of comfort with the teaching of language arts were relatively faithful to the major goals of the Expressways Program. The main ways in which these individuals adapted the curriculum were to supplement the proposed activities and instructional strategies and to adjust suggested writing topics, comprehension questions, or the time spent on particular units according to their interest and relevancy to the students. Most of the teachers in this group also tended to employ more objective techniques when assessing student progress than were proposed by the developers of the Expressways Program.

The major reason which teachers in group one gave for adapting different aspects of the curriculum was their personal beliefs about teaching. The only implementation concerns which also appeared to motivate some adaptations dealt with the need to supplement the curriculum, the whole group instructional approach, and the level of difficulty of various activities.

Profile of Teachers In Group Two. These teachers were relatively comfortable with the teaching of language arts. However, they did not experience the high degree of comfort with the subject which was experienced by the individuals in group one. They placed language arts on the second point on the sense of comfort continuum as opposed to the top position, which represented a very comfortable level. Although both groups tended to cite personal factors as being the major source of their sense of comfort with language arts, the teachers in group two gave less evidence of really enjoying or being truly interested in the subject. Instead, they attributed slightly more importance to less intrinsic factors such as teaching experience and educational background. Teachers in group two also indicated that student-related factors concerned with a child's success in the subject and the pleasure derived from participating in such achievements were somewhat responsible for their sense of comfort with language arts. On an overall basis, however, individuals in group two tended to identify fewer factors as contributing to their sense of comfort with language arts than did teachers who felt more comfortable with the subject.

The proposed implementation of the Expressways Program caused most of the group two teachers to experience numerous personal and instructional concerns. A number of individuals tended to be quite apprehensive about the fact that they were unfamiliar with the new curriculum, and they had no indication of the degree to which it would differ from the previous curriculum. Many teachers were equally worried about how they would implement some of the suggested goals and instructional approaches. In fact, nearly half of the participants in this group voiced the need for more in-service at this stage of implementation.

The concerns of teachers in group two did not diminish in number as they began using the Expressways Program in their classroom. There were some changes, however, in the orientation of the concerns and their specificity. Instead of worrying about the demands of the new curriculum and their personal adequacy to meet them, teachers began to focus on the relevance of the innovation for their students. They started to question the effectiveness of the difficulty level of the Program for children with varying abilities as well as the usefulness of the evaluation component. Many of the instructional concerns individuals experienced at this time also took on a student focus.

Teachers voiced concerns about the pace at which they should move through the curriculum, the instructional quality of the student's workbooks, and the value of the whole group instructional approach. In addition, a number of the teachers in this group continued to be bothered by the fact that they were not provided with more in-service.

Teachers in group two were not as faithful to the major goals of the Expressways Program as the teachers who were very comfortable with the teaching of language arts. Many individuals adapted the idea that equal attention should be given to all language strands (listening, reading, speaking, and writing) by generally emphasizing the reading and writing strands and particular objectives within these components. Many of the teachers in this group also tended to adapt instructional approaches or strategies with which they were not especially comfortable by using them less frequently than was suggested or by employing alternative techniques. Other adaptations which were typical of a number of these teachers were to modify comprehension questions, writing topics, or the time proposed to be spent on a unit according to their interest and relevancy to the students. The adaptations of this nature which teachers in group two made, however, were not as extensive as similar adaptations made by teachers in group one. The majority of the teachers in group two also disregarded the subjective methods of evaluation proposed in the Expressways Program and used predominantly objective (paper-and-pencil) forms of assessment.

Teachers in group two based many of their curricular adaptations on the degree of interest or enjoyment created by different aspects of the Expressways Program. Another factor which tended to strongly influence how they adapted the curriculum was the insufficiency of activities provided to ensure mastery of skills or concepts, an implementation concern experienced by approximately a third of the individuals in the group. Implementation concerns which focused on the whole group instructional approach and the difficulty level of the Program also motivated a few curricular adaptations.

__Profile of Teachers In Group Three__. Teachers in group three experienced a minimal sense of comfort with the teaching of language arts. In fact, individuals in this group found it extremely difficult to identify factors which caused them to feel comfortable with the subject. The only factor which was mentioned quite consistently as having a positive influence on their sense of comfort was support from colleagues. Many of the variables which teachers in groups one and two indicated as helping them to feel more comfortable with language arts, such as personal interest or enjoyment, educational training, or student success in the subject, teachers in group three suggested as sources of discomfort.

The proposed implementation of the Expressways Program caused the majority of the teachers in group three significant personal concerns. Individuals were very apprehensive about the fact that they had to give up a program which they liked and felt worked well for one about which they had very little knowledge. These teachers also questioned their own abilities to implement the whole group instructional approach and to provide supplementary activities which would possibly be needed to ensure mastery of language arts outcomes. A number of teachers in this group were equally concerned that more in-service was not provided at this stage of implementation.

Many of the concerns teachers in group three experienced prior to the implementation of the Expressways Program tended to remain with them as they began using the curriculum with their students. Individuals still worried about the degree to which it was necessary to supplement the Program, the effectiveness of the whole group approach, and the lack of organized in-service. Additional concerns also developed with respect to the pace at which one should move through the Expressways Program and the value of the evaluation component. While the concerns of teachers in groups one and two tended to become more student-orientated during the actual implementation of the Expressways Program, the concerns of teachers in group three continued to be primarily self-orientated. A couple of teachers even indicated that they were concerned about being supervised by administrative personnel when they were attempting to implement the curriculum.

The teachers in group three were the least faithful to the proposed goals of the Expressways Program. They adapted the idea of integrating other subject areas with language arts and the guidelines suggested for needs grouping, two of the major goals outlined in the curriculum. Many of these individuals also modified techniques or approaches concerned with the reading, writing, and speaking strands because they did not feel particularly comfortable trying to implement them in their classrooms. Some of these strategies were related to silent reading, peer or group editing, and group discussions. Another way in which teachers in this group adapted the Expressways Program was to supplement or change certain aspects of the curriculum according to their interest for or relevancy to the students. This was particularly evident with regard to comprehension questions, topics for written compositions, and the length of time intended to be spent on a unit. The supplementary adaptations made by these teachers were less extensive, however, than similar adaptations made by teachers who felt a greater sense of comfort with language arts. Most of the teachers in group three also tended to base their assessment of student progress on objective types of tests as opposed to frequent teacher observations which were strongly recommended by the developers of the curriculum.

The major reason which teachers who experienced little sense of comfort with language arts gave for making adaptations in the Expressways Program was the need for concrete feedback on student progress, an issue which concerned them as they attempted to implement the curriculum. Other reasons cited by these teachers as motivating curricular adaptations included advice from colleagues who had worked with the Expressways Program, knowledge of strategies or activities that had been successful in the past, and insufficiency of appropriate activities to ensure mastery of skills or concepts.

Recommendations

This study was undertaken to gain an understanding of the different ways in which teachers adapt a curriculum to suit their own teaching situations. An equally important purpose of the study was to investigate the possible effect that a teacher's sense of comfort with a subject could have on such curricular adaptations and implementation concerns. Consequently, recommendations based on findings from the study tend to relate to in-service teacher education, curriculum development, preservice teacher education, and staff development. This section outlines these recommendations as well as implications for further research.

For In-service Teacher Education

The findings of this study showed that teachers' implementation concerns differed not only with respect to their sense of comfort with language arts, but also with respect to the stage which they were at in the implementation process. These data have implications for in-service teacher education. First, they emphasize the need for distributing in-service activities over a fairly lengthy period of time as opposed to arranging for them to be completed before implementation actually begins or during the initial stages of the process. Since teachers' concerns appear to change as their use of an innovation becomes more routine, it is essential that assistance be provided at all stages of the implementation process.

It is also recommended that change facilitators attempt to design various forms of intervention which would target teachers' individual needs. This would mean that, instead of providing all teachers involved in the implementation of an innovation with the same type of assistance, a variety of activities would be made available to teachers at the various phases of the implementation process. Teachers would then have the option of attending those which they felt best addressed their particular concerns. These recommendations regarding in-service teacher education are consistent with the research completed by Hall and Loucks (1978) with respect to personalizing staff development. They discovered that forms of assistance which were based on actual data collected in relation to teachers' concerns about an innovation were considered by these individuals to be extremely helpful.

In order to gather the information necessary for designing relevant in-service activities, change facilitators might arrange for individual or small-group discussions with teachers about their perceptions of the strengths and weaknesses of an innovation and any problems they are experiencing as they attempt to use it with their students. Hall and Loucks (1978) suggest that it is best to avoid direct questions about personal implementation concerns since teachers may feel their professional abilities are being evaluated. Another way of obtaining such information would be to ask teachers to submit written descriptions of in-service activities which they feel would alleviate the implementation concerns they are experiencing at that time. To increase the chances of teachers expressing their true thoughts on this question, it should be stipulated that responses are to be anonymous. Once all the teachers involved with the innovation in question had submitted their ideas, a list of in-service activities could be designed. Teachers would then have the opportunity to select those which they wished to attend.

Still another way of collecting data about implementation concerns is to have teachers complete a formal Stages-of-Concern Questionnaire that consists of a number of items with a Likert scale on which individuals must indicate their present degree of concern about the topic described in the item (Hall & Loucks, 1978, p. 44).

The resulting concerns profile allows people responsible for staff development to target assistance at the concerns which are most intense for an individual at that particular time. Although the questionnaire is not intended to be anonymous, it is possible that it could be used in this manner to gain meaningful data for planning different change strategies for a group of teachers.

For Curriculum Development

The findings from this study also have implications for curriculum development. Questionnaire and interview responses indicated that teachers' sense of comfort with language arts influenced the type of adaptations they made in the curriculum. Teachers who felt very comfortable with the subject tended to make a considerable number of adaptations of a supplementary nature. Changing strategies or techniques and stressing particular language strands, however, seemed to be more characteristic of individuals who experienced less comfort with language arts. Such data would suggest that perhaps alternative curricula based on sense of comfort with the subject area should be available for teachers' use in an attempt to meet varying needs and desires. For example, teachers who feel very comfortable with a subject may not require supplementary or reinforcement activities to be developed in great detail, whereas individuals who are not particularly comfortable with the subject might find such explicitness extremely useful when attempting to provide students with appropriate corrective or enrichment activities. Similarly, teachers may differ in their need for specificity with respect to instructional strategies proposed in a curriculum because of their sense of comfort with the subject area in question.

The basic idea of trying to meet individual needs or preferences underlying the previous recommendation is somewhat consistent with other research regarding curriculum development. Connelly and Ben-Peretz (1980) propose that, instead of having one set of materials for all teachers at a particular grade level within a school district or a designated area, teachers be given the opportunity to choose among several versions of the materials. As a result of her involvement in such a project at Haifa University, Ben-Peretz (1980) did concede, however, that only limited numbers of teachers can be effectively involved in the planning and construction of such curriculum packages.

In an attempt to examine relationships between selected curriculum designs and teacher attitudes toward elementary school gymnastics, Potvin (1982) asked teachers to use curricula which differed in the specificity of the theme material provided. From the resulting data, he concluded that a variety of curriculum designs is necessary to meet the diverse needs of non-specialist teachers in this subject area.

If a teacher's sense of comfort with a subject were to be considered when developing alternative curricula, it would be essential to involve individuals who differ significantly with respect to this variable in the development process. This could be done by asking such teachers to work cooperatively with curriculum specialists in the actual planning and development of curricula or to provide feedback in the formative stages of the actual construction. In either case, because of the evaluative overtones ,carried by sense of comfort, care would need to be taken to ensure that all individuals felt that they were making a valuable contribution.

For Staff Development

Since the provision of alternative curricula may not be feasible in many situations, what is perhaps really needed are means of helping teachers who experience minimal comfort with a subject to develop a greater sense of comfort. One way in which this might be accomplished is to involve teachers in coaching, a staff development process developed by Joyce and Showers (1983) to help teachers transfer new teaching skills into their active repertoire. Individuals who are part of a coaching team observe one another's teaching on a regular basis and later provide positive and informative feedback.

This study showed that teachers who experienced a high sense of comfort with language arts tended to be very interested in the subject and to personally enjoy different aspects of it. If a teacher who possessed minimal comfort with a subject were part of a coaching team on which there were teachers who felt very comfortable with the subject, perhaps over a period of time that individual would begin to develop similar attitudes about the subject. During the initial coaching sessions, it might be beneficial to have the teacher who expressed the least comfort with the subject do the observations. This may create a less threatening situation for that participant and thus ultimately make it a more positive experience.

The recommendation to involve teachers in the coaching process is also supported by interview responses given during the study. A considerable number of teachers believed that having the opportunity to observe different teachers using the Expressways Program with their students would increase their confidence about implementing particular strategies or activities. In addition, many of the teachers in group three who professed being least comfortable with language arts cited the support of their colleagues as one of the few factors which contributed positively to their sense of comfort with the subject.

For Preservice Teacher Education

The findings of this study pertaining to factors which influence one's sense of comfort with a subject also have implications for preservice teacher education. The teachers who were very comfortable with the teaching of language arts usually attributed much of this sense of comfort to their personal interest in the subject and the enjoyment it gave them. This tendency emphasizes the need for teacher education programs to involve prospective teachers in activities or projects which will nurture such attitudes. One possible way of accomplishing this might be to organize group projects where individuals who vary in their sense of comfort with a subject work cooperatively. In addition, perhaps methods courses should not focus strictly on instructional strategies or how to teach modern curricula. If students were given numerous opportunities within such courses to observe the lessons of teachers who profess being very comfortable with a subject, their sense of comfort might be more likely to increase. Even arranging for more class debates or seminars on the interesting facets of a subject area could prove to be valuable in increasing sense of comfort.

For Further Research

The findings of this study offer some direction for further research. First, the results of the sense of comfort survey administered to 148 elementary classroom teachers showed that there was a much wider range in the sense of comfort that teachers experienced with social studies, science, music, phys. ed., health, and art than was evidenced with language arts. Replicating this study by using different curricula should reveal if specific implementation concerns or curricular adaptations tend to be unique to particular subject areas. It would also provide the opportunity to include in the study sample those teachers who place a subject on the least comfortable point on the continuum, something which was not possible in this study.

The organization of the secondary school usually differs significantly from that of an elementary school with respect to departmentalization. As a result, secondary teachers generally tend to specialize in certain subject areas. It would be worthwhile to replicate this study with teachers at this level to determine if their sense of comfort with a subject influences their implementation concerns or curricular adaptations.

An ethnographic study could be conducted with two or three teachers to extend the data of this study. It would provide a more detailed description of implementation concerns, curricular adaptations, and the sources underlying these changes. Such data should be valuable to individuals responsible for designing curricula or planning in-service activities. It would also provide a basis on which to discern the value of different kinds of adaptations.

These recommendations are consistent with the premise underlying this study that teachers are going to adapt curricula in accordance with their teaching situations, and, therefore, knowledge gained with respect to such changes would be valuable to those involved with facilitating implementation.

REFERENCE LIST

Ben-Peretz, M., & Tamir, P. (1981). What teachers want to know about curriculum materials. Journal of Curriculum Studies, 13(1), 45-54.

Berman, P., & McLaughlin, M. (1976). Implementation of educational innovations. Educational Forum, 40(3), 345-370.

Berry, G.L., Friesen, D., & Hersom, N. (1971). Curriculum development for classroom teachers. Edmonton, Alberta: Alberta Teacher's Association.

Boag, N.H. (1980). Teacher perception of curricular change. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Borg, W.R., & Gall, M.D. (1983). Educational research an introduction (4th ed.). New York: Longman Inc.

Clinton, C.A. (1979). Shiloh County: A matter of agendas. In R.E. Herriott & N. Gross (Eds.), The dynamics of planned educational change (pp. 215-235). Berkeley: McCutchan Publishing Corporation.

Cohen, L., & Manion, L. (1985). Research methods in education. New Hampshire: Croom Helm.

Connelly, F.M., & Ben-Peretz, M. (1980). Teachers' role in the using and doing of research and curriculum development. Journal of Curriculum Studies, 12(2), 95-107.

Connelly, F.M., Finegold, M., Wahlstrom, M.W., Ben-Peretz, M. (1977). TOTSI matches teacher to curriculum. The Science Teacher, 44(2), 24-26.

Crocker, R.K. (1984). Determinants of implementation of an elementary science program. Journal of Research in Science Teaching, 21(2), 211-220.

Crowther, F.A. (1972). Factors affecting the rate of adoption of the 1971 Alberta social studies curriculum for elementary schools. Unpublished master's thesis, University of Alberta, Edmonton.

Davis, J.E. (1978, May). More effective curriculum development and implementation. Paper presented to the Canadian Association for Curriculum Studies, London, Ontario.

Deal, T.E. (1984). Educational change: Revival tent, tinkertoys, jungle, or carnival? Teachers College Record, 86, 124-137.

Donnelly, W.L. (1979). Arcadia: Local initiatives and adaptation. In R.E. Herriott & N. Gross (eds.), The dynamics of planned educational change (pp. 185-214). Berkeley: McCutchan Publishing Corporation.

Doyle, W., & Ponder, G. (1977). The practicality ethic in teacher decision-making. Interchange, 8(3), 1-12.

Elliott, J. (1976). Developing hypotheses about classrooms from teachers' practical constructs: An account of the work of the Ford Teaching Project. Interchange, 7(2), 2-22.

Emrick, J.A., Peterson, S.M., & Agarwala-Rogers, R. (1977). Evaluation of the national diffusion network, Volume I: Findings and recommendations. Menlo Park, California: Stanford Research Institute.

Firestone, W.A. (1979). Butte-Angels Camp: Conflict and transformation. In R.E. Herriott & N. Gross (eds.), The dynamics of planned educational change (pp. 150-184). Berkeley: McCutchan Publishing Corporation.

Fowler, F.J., Jr. (1984). Survey research methods. Beverly Hills: Sage Publications.

Fox, D.J. (1969). The research process in education. New York: Holt, Rinehart and Winston, Inc.

Fullan, M. (1982). The meaning of educational change. Toronto: The Ontario Institute for Studies in Education.

Fullan, M. (1985). Change processes and strategies at the local level. The Elementary School Journal, 85(3), 391-421.

Fullan, M., & Pomfret, A. (1977). Research on curriculum and instruction implementation. Review of Educational Research, 47(1), 335-397.

Galfo, A.J. (1983). Educational research design and data analysis an integrated approach. Lanham, New York: University Press of America, Inc.

Goldsberry, L., & Harvey, P. (1985). Collaborative staff development in an elementary school. The Journal of Staff Development, 6(1), 37-45.

Good, C.V. (1972). Essentials of educational research methodology and design. New York: Appleton-Century-Crofts, Educational Division, Meredith Corporation.

Goodlad, J.I. (1975). The dynamics of educational change: Toward responsive schools. New York: McGraw Hill Book Company.

Goodlad, J.I., Klein, M.F., & Associates. (1970). *Behind the classroom door*. California: Wadsworth Publishing Company, Inc.

Greenwood, P.W., Mann, D., & McLaughlin, M. (1975). *Federal programs supporting educational change, Volume III: The process of change (Report No. R-1589/3, HEW)*. Santa Monica, California: Rand Corporation. (ED 108 325)

Gross, N., Giacquinta, J.B., & Bernstein, M. (1975). Failure to implement a major organizational innovation. In J.V. Baldridge & T.E. Deal (Eds.), *Managing change in educational organizations* (pp. 409-426). Berkeley: McCutchan Publishing Corporation.

Hall, G., Hord, S.M., & Griffin, T. (1980, April). *Implementation at the school building level: The development and analysis of nine mini-case studies*. Paper presented at the annual meeting of the American Educational Research Association, Boston, Massachusetts. (ED 207 170)

Hall, G.E., & Loucks, S.F. (1978). Teacher concerns as a basis for facilitating and personalizing staff development. *Teachers College Record*, *80*(1), 36-53.

Hall, G.E., & Loucks, S.F. (1981, April). *The concept of innovation configurations: An approach to addressing program adaptation. Research on concerns-based adoption*. (Report No. R & D-3116). Austin, Texas: Research and Development Center for Teacher Education. (ED 226 454)

Hall, G.E., Loucks, S.F., Rutherford, W.L., & Newlove, B.W. (1975). Levels of use of the innovation: A frame work for analyzing innovation adoption. *Journal of Teacher Education*, *26*(1), 52-56.

Hamilton, D. (1975). Handling innovations in the classroom: Two Scottish examples. In W. Reid & D. Walker (Eds.), *Case studies in curriculum change* (pp. 179-207). London: Routledge and Kegan Paul Ltd.

Havelock, R.G. (1973). *The change agent's guide to innovation in education*. New Jersey: Educational Technology Publications.

House, E.R. (1971, June). *The gifted classroom*. Illinois: Illinois University, Center for Instructional Research and Curriculum Evaluation. (ED 033 309)

House, E.R. (1976). The micropolitics of innovation: Nine propositions. *Phi Delta Kappan*, *57*(5), 337-340.

Huberman, A.M. (1973). *Understanding change in education: An introduction*. Paris: United Nations Educational, Scientific and Cultural Organization.

Huberman, A.M., & Crandall, D.P. (1982). Implications for action. A study of dissemination efforts supporting school improvement. People, policies, and practices: Examining the chain of school improvement, Volume IX. Andover, Massachusetts: Network of Innovative Schools, Inc. (ED 240 721)

Huberman, A.M., & Miles, M.B. (1984). Innovations up close. New York: Plenum Press.

Hughes, A.S., & Keith, J.J. (1980). Teacher perceptions of an innovation and degree of implementation. Canadian Journal of Education, 5(2), 43-51.

Ingram, E.G. (1966). Implementing educational change. In The principal and educational change, the Lecture Series of the 1966 Leadership Course for School Principals (pp. 39-46). Edmonton, Alberta: Department of Educational Administration, The University of Alberta.

Jackson, P. (1968). Life in classrooms. Chicago: Holt, Rinehart and Winston, Inc.

Janesick, V.J. (1979). An ethnographic study of a teacher's classroom perspective: Implications for curriculum. Michigan State University, East Lansing, Michigan: Institute for Research on Teaching. (ED 173 302)

Jeffares, D. (1973). A descriptive study of teacher decisions in curriculum development. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Joyce, B., & Showers, B. (1980). Improving in-service training: The messages of research. Educational Leadership, 37(5), 379-385.

Joyce, B., & Showers, B. (1983). Power in staff development through research on training. Virginia: Association for Supervision and Curriculum development.

Kelly, P. (1980). From innovation to adaptability: The changing perspective of curriculum development. In M. Galton (Ed.), Curricu- lum change the lessons of a decade (pp. 65-80). London: Leicester University Press.

Kimpston, R.D. (1985). Curriculum fidelity and the implementation tasks employed by teachers: A research study. Journal of Curriculum Studies, 17(2), 185-195.

Kremer, L., & Ben-Peretz, M. (1980). Teachers' characteristics and their reflection in curriculum implementation. Studies in Educational Evaluation, 6, 73-82.

Leithwood, K.A., & MacDonald, R.A. (1981). Reasons given by teachers for their curriculum choices. *Canadian Journal of Education* *6*(2), 103-116.

Leithwood, K.A., & Montgomery, D.J. (1982). The role of the elementary school principal in program improvement. *Review of Educational Research*, *52*(3), 309-339.

Leithwood, K.A., Ross, J.A., & Montgomery, D.J. (1982). An investigation of teachers' curriculum decision making. In K.A. Leithwood (Ed.), *Studies in curriculum decision making* (pp. 14-26). Toronto: The Ontario Institute for Studies in Education.

Levine, S. (1985). Translating adult development research into staff development practices. *The Journal of Staff Development*, *6*(1), 6-17.

Lieberman, A. (1982). Practice makes policy: The tensions of school improvement. In A. Lieberman & M.W. McLaughlin (Eds.), *Policy making in education eighty-first yearbook of the national society for the study of education* (pp. 249-269). Chicago: The University of Chicago Press.

Lortie, D.C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.

Loucks, S.F. (1983, April). *Defining fidelity: A cross-study analysis.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Quebec. (ED 249 659)

Loucks, S, & Melle, M. (1980, April). *Implementation of a district-wide science curriculum: The effects of a three year effort.* Paper presented at the annual meeting of the American Educational Research Association. Los Angeles, California. (ED 204 181)

McCutcheon, G. (1980). How do elementary school teachers plan? The nature of planning and influences on it. *The Elementary School Journal*, *81*(2), 4-23.

McKinney, W.L., & Westbury, I. (1975). Stability and change: The public schools of Gary, Indianna, 1940-70. In W. Reid & D. Walker (Eds.), *Case studies in curriculum change* (pp. 1-53). London: Routledge and Kegan Paul Ltd.

McLaughlin, M. (1976). Implementation as mutual adaptation. Change in classroom organization. In W. Williams & R.F. Elmore (Eds.), *Social program implementation* (pp. 167-180). New York: Academic Press, Inc.

McLaughlin, M., & Marsh, D. (1978). Staff development and school change. *Teachers College Record*, *80*(1), 69-94.

Messerschmidt, D.A. (1979). River District: A search for unity amidst diversity. In R.E. Herriott & N. Gross (Eds.), The dynamics of planned educational change (pp. 74-111). Berkeley: McCutchan Publishing Corporation.

Miel, A. (1973). These are the schools--issues and options. In J.I. Goodlad & H.G. Shane (Eds.), The elementary school in the United States (Part II) (pp. 87-111). Chicago: The University of Chicago Press.

Mouly, G.J. (1969). The science of educational research. New York: American Book Company.

Nolan, F.M. (1978). Composing processes of grade six able writers. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Oberg, A.A. (1975). Information referents and patterns in the curriculum planning of teachers. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Odynak, E. (1981). Kanata kit one: A classroom experience. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Olson, J.K. (1980). Teacher constructs and curriculum change. Journal of Curriculum Studies, 12(1), 1-11.

Orgren, J. (1977). The long-term effects of mandated curriculum adoption on teaching behavior. Journal of Research in Science Teaching, 14(5), 419-425.

Owens, T.R., & Haenn, J.F. (1977, April). Assessing the level of implementation of new programs. Paper presented at the annual meeting of the American Educational Research Association, New York, New York. (ED 136 426)

Pansegrau, M.V. (1983). Teacher's perspectives on in-service education. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Potvin, B. (1982). The relationship of elementary school gymnastics curriculum designs to teacher attitude and perceived knowledge. Unpublished master's thesis, University of Alberta, Edmonton.

Pylypiw, J.A. (1974). A description of classroom curriculum development. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Regan, E.M., & Leithwood, K.A. (1974). Effecting curriculum change. Toronto: The Ontario Institute for Studies in Education.

Sarason, S. (1982). The culture of the school and the problem of change (2nd ed.). Boston, Massachusetts: Allyn and Bacon, Inc.

Scheinfeld, D.R., & Messerschmidt, D. (1979). Teachers' classroom ideals, structural decisions, and views of the person-world relationship. Journal of Curriculum Studies, 11(4), 299-314.

Sergiovanni, T.J. (1969). Factors which affect satisfaction and dissatisfaction of teachers. In F.D. Carver & T.J. Sergiovanni (Eds.), Organizations and human behavior: Focus on schools (pp. 249-260). New York: McGraw-Hill Book Company.

Simms, J.J. (1978). The dynamics of the implementation of curricular innovations. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Smith, L.M., & Keith, P.M. (1971). Anatomy of educational innovation: An organizational analysis of an elementary school. New York: John Wiley and Sons, Inc.

Smorodin, C. (1984, April). Why teachers implement: An examination of selected variables. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana. (ED 249 622)

Spradley, J.P. (1979). The ethnographic interview. New York: Holt, Rinehart and Winston.

Spradley, J.P. (1980). Participant observation. New York: Holt, Rinehart and Winston.

Thomas, V. (1979). Teaching spelling: Canadian words lists and instructional techniques. Toronto, Ontario: Gage Publishing Ltd.

Tisher, R.P., & Power, C.N. (1978). The learning environment associated with an Australian curriculum innovation. Journal of Curriculum Studies, 10(2), 169-184.

Tom, A. (1973). Teacher reaction to a systematic approach to curriculum implementation. Curriculum Theory Network, 11, 86-93.

Wint, D.M., & Kennedy, W.R. (1977, April). Strategies affecting successful implementation of an environmental curriculum into Ohio schools. Paper presented at the annual meeting of the Ohio Academy of Science, Columbus, Ohio. (ED 144 779)

Wirt, J.G. (1978). Implementing diagnostic/prescriptive reading innovations. In D. Mann (Ed.), Making change happen (pp. 32-45). New York: Teachers College Press.

Zais, R.S. (1976). Curriculum principles and foundations. New York: Harper and Row.

APPENDICES

APPENDIX A

SENSE OF COMFORT SURVEY

NAME: ______________________________

SCHOOL: ______________________________

CURRENT GRADE(S) TAUGHT: ______________________

PHONE NUMBER: SCHOOL: __________ HOME: __________

Please arrange the following subjects according to the sense of comfort you feel with the teaching of each of them:

ART HEALTH LANGUAGE ARTS MATH MUSIC PHYS. ED. SCIENCE SOCIAL STUDIES

Beside those subjects you have taught in the past but are not teaching presently please write (NTP) and beside those subjects you have never taught please write (NT).

________	________	________	________	________
________	________	________	________	________
________	________	________	________	________
________	________	________	________	________
________	________	________	________	________
________	________	________	________	________

MOST COMFORTABLE ——————————————————————— LEAST COMFORTABLE

SENSE OF COMFORT WITH THE TEACHING OF A SUBJECT AREA

APPENDIX B

INTERVIEW SCHEDULE

Sense of Comfort

1.(a) On the survey pertaining to your sense of comfort with the teaching of various subjects, you indicated that you feel more comfortable with the teaching of language arts than you are with the teaching of many other subjects. What do you think accounts for the sense of comfort that you have with the teaching of language arts? (GROUP ONE TEACHERS)

1.(b) On the survey pertaining to your sense of comfort with the teaching of various subjects, you indicated that you feel more comfortable with the teaching of ... and ... than you are with the teaching of many other subjects. What do you think accounts for the sense of comfort that you have with the teaching of ... and ...? (GROUP TWO AND THREE TEACHERS)

2.(a) Are there any additional factors which you feel have contributed in some way to the sense of comfort that you feel with the teaching of language arts? (GROUP ONE TEACHERS)

2.(b) Are there any additional factors which you feel have contributed in some way to the sense of comfort that you feel with the teaching of ... and ...? (GROUP TWO AND THREE TEACHERS)

3.(a) You also placed ... and ... on the most comfortable point on the continuum. Do you feel that the factors which you indicated were responsible for your sense of comfort with the teaching of language arts are the same factors which account for your sense of comfort with the teaching of ... and ...? (GROUP ONE TEACHERS)

3.(b) You also indicated that you feel more comfortable with the teaching of language arts than ... and ... but less comfortable with the teaching of it than ... and ... . What do you think accounts for the sense of comfort that you have with the teaching of language arts? (GROUP TWO AND THREE TEACHERS)

3.(c) Are there any additional factors which you feel have contributed in some way to the sense of comfort that you feel with the teaching of language arts? (GROUP TWO AND THREE TEACHERS)

4. You indicated that you feel less comfortable with the teaching of ... and ... than you are with the teaching of the other subjects. What factors do you feel cause you to have this particular sense of comfort with the teaching of these subjects?

5. Are there any other reasons why you feel less comfortable with the teaching of ... and ...?

6. Do you think that your sense of comfort with the teaching of any one of these subjects would change if you were teaching at a different grade level in the elementary school than you are presently?

Implementation Concerns

7. When you first learned that you would have to implement the Expressways Program, do you remember being at all concerned about the proposed curriculum change?

8.(a) YES RESPONSE--Can you recall any of the specific concerns which you had at that time?

8.(b) NO RESPONSE--Can you recall any reasons which you feel accounted for the fact that you had no concerns about the planned implementation of the Expressways Program?

9.(a) YES RESPONSE--As you have continued to work with the Expressways Program have your initial concerns changed or additional concerns developed?

9.(b) NO RESPONSE--As you have continued to work with the Expressways Program have any concerns developed?

10.(a) YES RESPONSE--Did you receive any kind of help with the implementation of the Expressways Program? Did this assistance help to alleviate your implementation concerns or make the actual implementation of the Expressways Program any easier?

10.(b) NO RESPONSE--Did you receive any kind of help with the implementation of the Expressways Program? Do you feel that this assistance was in any way responsible for you not having any concerns about the proposed implementation of the Expressways Program, or that it made the actual implementation of the Program any easier?

11.(a) YES RESPONSE--Is there anything further that you feel could have been done that might have alleviated your implementation concerns or facilitated the implementation of the Expressways Program?

11.(b) NO RESPONSE--Is there anything further that you feel could have been done that might have facilitated the implementation of the Expressways Program?

12.(a) YES RESPONSE--Do you feel that the concerns you experienced prior to the implementation of the Expressways Program would be the same kind of concerns that you might have if asked to implement a new curriculum in any subject area? (NO)--Can you indicate in what ways you think they might be different?

12.(b) NO RESPONSE--You did not have any concerns prior to the implementation of the Expressways Program. Do you feel that this would be true if you were asked to implement a new curriculum in any subject area? (NO)--Can you indicate what concerns you think you might have if asked to implement a curriculum in another subject area?

13. Do you feel that your sense of comfort with the teaching of a subject area influences the concerns you have when asked to implement a curricular innovation in that subject area? Can you explain why you feel this to be true?

General Questions

14. You have been using the Expressways Program for about...year(s). Did you find yourself making changes in the Program during this time period? Can you recall any of those changes and your reasons for making them?

15. The Expressways Program is an integrated language arts approach which attempts to develop students' competence in listening, reading, speaking, and writing. Therefore, lessons are included to show the interrelationships among these four language strands. Have you found it possible to develop students' understanding of this interrelationship among the language strands? In your experience with the Expressways Program do you feel that you have stressed one or some of the language strands more than the others? Do you recall any factors which influenced you to make this adaptation?

16. The Expressways Program asks teachers to integrate the curriculum in other subject areas with the language arts curriculum. Do you think this is a reasonable expectation? Have you had to modify this aspect of the Program in any way?

17. In each unit of the Expressways Program materials, experiences, and learning activities in each language strand are related to a theme. Do you think the thematic approach is a good idea? Have you found it necessary to make any changes in this aspect of the Program?

18. The developers of the Expressways Program planned the units with the idea that they would be taught consecutively in order to facilitate continuous progress. Do you feel this is a reasonable expectation? Have you had to make any changes in this format?

19. In each unit of the Expressways Program there is a unit overview chart which outlines the various activities proposed for the unit, indicates how the activities integrate the language strands, and notes the related workbook pages. Do you find this chart to be a useful aid?

20.(a) One of the core materials of the Expressways Program is the student's workbook which includes a variety of exercises. Some of the exercises are intended to be done independently, others require teacher direction, and still others may be used as a form of assessment. Have you had to make changes in any aspect of the workbooks?

20.(b) The Expressways Program also makes available large picture cards intended for motivating discussions. Have you found it possible to use these cards in the manner suggested by the developers? (GRADE ONE TEACHERS)

21.(a) Most of the units in the earlier levels of the Expressways Program provide teachers with a variety of optional experiences, such as independent activities and experience extensions. These ativities may be used to enrich students' language backgrounds. Have you found these suggestions to be useful with your students? (YES)--Did you find it necessary to change them in any way? (NO)--Were there any particular reasons that you can recall as to why you decided not to use these proposed activities? (GRADE ONE, TWO, AND THREE TEACHERS)

21.(b) In each unit of the Expressways Program there are optional experiences called experience extensions which are intended to enrich students' language backgrounds. Have you found these suggestions to be useful with your students? (YES)--Did you find it necessary to change them in any way? (NO)--Were there any particular reasons that you can recall as to why you decided not to use these proposed activities? (GRADE FOUR AND FIVE TEACHERS)

The Expressways Program makes available some supplementary materials which teachers may use with their students.

22.(a) One of these materials is the novel. Have you been able to use the novel with your students? The developers of the Program suggest some ideas for studying the novel. These include experience sections, follow-up activities, and a proposed time frame. Do you find these suggestions to be useful when studying the novel? Have you had to modify them in any way? (GRADE THREE, FOUR, AND FIVE TEACHERS)

22.(b) Another of the supplementary materials is the Sounding Board which includes suggestions for structured oral reading. Have you been able to use the Sounding Boards with your students? Did you find it necessary to adapt these booklets in any way when using them with your students? (GRADE FOUR AND FIVE TEACHERS)

22.(c) One of these materials is the phonics workbook. Have you found this workbook to be useful with your students? Did you find that you had to make any sorts of changes in this workbook? (GRADE ONE, TWO, AND THREE TEACHERS)

22.(d) The Expressways Program also makes available Reading Corners, the Expressvan, and Talk-a-Rounders for independent use with your students. Do you find these supplementary materials to be useful teaching aids? Have you found it necessary to make adaptations in any of these materials? (GRADE ONE TEACHERS)

22.(e) The Expressways Program also makes available Reading Corners and the Spelling Game for independent use with your students. Have you found it possible to make use of either of these supplementary materials? Did you find it necessary to make adaptations in any of these materials? (GRADE TWO TEACHERS)

22.(f) The Expressways Program also makes available the Spelling Game for independent use with your students. Do you find this game to be a valuable teaching aid? Have you had to modify it in any way? (GRADE THREE TEACHERS)

23. What sort of grouping arrangements do you have when using the Expressways Program? Do the members in your group or groups remain the same throughout the year?

24. The developers of the Expressways Program suggest that grade... students complete...levels of the Program. Do you feel this is a reasonable expectation? Have you had to modify this guideline in any way? Have you had to make any adjustments in the amount of time formally scheduled for the teaching of language arts to accomplish the related learning outcomes?

Reading Component

25. It is a major goal of the Expressways Program to promote students' competence in reading. Have you found it necessary to make adaptations in the proposed objectives, content, teaching strategies, activities, methods of evaluation, or any other aspect of the reading component of the Program?

26. The Expressways Program asks that for every unit teachers make available to students books or other reading materials related to the theme being studied. Do you think this is a reasonable expectation? Have you had to modify this aspect of the Program in any way?

27. The Expressways Program recommends that students initially experience a reading selection by reading it silently to develop their comprehension. Do you feel this is a valuable suggestion? Have you had to make any changes in this idea?

28. The Expressways Program provides questions to guide the interpretation of reading selections. Do you find these questions to be a valuable teaching aid? Have you found it necessary to adapt the given questions?

29. Each unit of the Expressways Program gives attention to strengthening students' reading comprehension in areas, such as noting and recalling details, finding main idea, sequencing events, recognizing cause and effect relationships, making inferences, predicting outcomes, sensing emotional reactions, or making

judgements. Can you recall having made any changes in the reading comprehension section of the Program?

30.(a) It is a goal of the Expressways Program that students develop a knowledge of word recognition skills, such as phonics, word structure, the use of context clues, and sight vocabularly. Do you feel this is a reasonable expectation? Have you had to make any changes with respect to word recognition skills? Are there any of these methods that you tend to emphasize? (GRADE ONE, TWO, AND THREE TEACHERS)

30.(b) It is a goal of the Expressways Program that students develop a knowledge of word recognition skills, such as phonics, word structure, dictionary usage, and the use of context cues. Do you feel this is a reasonable expectation? Have you had to make any changes with respect to word recognition skills? Are there any of these methods that you tend to emphasize? (GRADE FOUR AND FIVE TEACHERS)

31.(a) In each unit a number of words are selected as core vocabularly. Have you found it necessary to make any changes in the selected words or the activities proposed to develop recognition and understanding of these words? (GRADE ONE, TWO, AND THREE TEACHERS)

31.(b) In each unit there are some sections pertaining to the vocabularly found in the reading selections. Have you found it necessary to make any changes in the emphasized words or the activities proposed to develop the recognition and understanding of these words? (GRADE FOUR AND FIVE TEACHERS)

Writing Component

32. It is a goal of the Expressways Program to develop students' competence in writing. Have you found it necessary to make adaptations in the proposed objectives, suggested topics, teaching strategies, activities, forms of evaluation, or any other aspect of the writing component of the Program?

33. The Expressways Program asks teachers, particularly at the primary level, to have students do group compositions based on their personal experiences. Do you feel this is a valuable and feasible technique to use with students? Have you made any changes in this suggestion?

34. The Expressways Program also promotes individual writing. This is done through directed activities where students tend to write on the same topic and use a particular format and independent activities where students are given the opportunity of deciding on their own topics and written format. Have you found it necessary to adapt any aspect of either of these approaches to individual writing?

35. The Expressways Program suggests that teachers provide students with the opportunity to share their written compositions with a group

or another individual to promote group or peer editing. Do you think this is a reasonable expectation? Have you made changes in any aspect of this strategy?

Listening Component

36. Another goal of the Expressways Program is to develop students' competence in listening. Can you recall making any changes in the proposed objectives, suggested selections, teaching strategies, activities, forms of evaluation, or any other aspect of the listening component of the Program?

Speaking Component

37. It is also a goal of the Expressways Program to develop students' competence in speaking. Do you remember making adaptations in the proposed objectives, suggested topics, teaching strategies, activities, forms of evaluation, or any other aspect of the speaking component of the Program?

38. The Expressways Program asks that teachers involve students in numerous group discussions. Do you think this is a reasonable expectation? Have you had to make changes in any aspect of the suggested discussions?

Spelling Component

39. The Expressways Program includes a spelling component with specific word lists, suggested activities, possible word study procedures, and guidelines for pretests. Have you found it necessary to make changes in any aspect of the spelling component? (GRADE TWO AND THREE TEACHERS)

Assessment Component

40. The developers of the Expressways Program provide some suggestions for assessing student achievement. Have you found yourself making changes in any of these suggestions?

41. At the end of each unit in the Expressways Program is a section called Checking Achievement. It outlines the key tasks undertaken in the unit which the teacher should assess in some manner. Have you found this to be a valuable aid when attempting to determine if students have mastered particular skills and concepts?

42. End-of-level tests are available for each level of the Expressways Program. Do you feel these tests are a valuable teaching aid? Have you had to adapt them in any way?

43. Certain pages of the students' workbooks are designated or may be used as assessment pages. Have you used any of these pages to assess if students have mastered particular concepts or skills? Have you had to adapt such pages in any way?

44.(a) The Expressways Program provides a Language Record Card which teachers are encouraged to use for noting their personal observations of a student's growth in use of his or her experiences, listening, reading, speaking, and writing. Do you feel this is a useful teaching aid? Have you had to make any adaptations with respect to the Language Record Card? (b) The Expressways Program also suggests that teachers keep anecdotal records which focus on students' achievements in language development. Do you think this is a reasonable expectation? Have you had to modify this aspect of the Program in any way?

Concluding Questions

45. You have mentioned various changes that you have made in the Expressways Program as you have attempted to implement it in your classroom situation. Do you think that the kinds of adaptations which you made in the Expressways Program would be the same kinds of adaptations that you would make in any new curriculum?

46. Do you feel comfortable enough with the teaching of language arts that you feel you could teach the subject without a prescribed curriculum such as the Expressways Program?

This is the end of my questions. However, if there is anything that you have remembered about the factors contributng to your sense of comfort with the teaching of the various subjects, implementation concerns, or other adaptations which you have made in the Expressways Program, I would be happy to entertain those as well.

APPENDIX C

QUESTIONNAIRE: FACTORS CONTRIBUTING TO TEACHERS' SENSE OF COMFORT WITH THE TEACHING OF LANGUAGE ARTS

The teachers in this study suggested a variety of factors which contributed to their sense of comfort with the teaching of language arts. Those factors are listed below.

What were the major factors which you felt contributed to **your** sense of comfort with the teaching of language arts. Please rank order a minimum of **one** and a maximum of **five** factors.

____ Educational background (e.g., courses taken at college or university in the area of language arts, English, or the teaching of reading)

____ Organized professional development in the area of language arts at the provincial, district, or school level

____ Personal enjoyment derived from such aspects of language arts as reading or writing

____ Personal experiences occurring during one's lifetime (e.g., the opportunity to watch family members' progress in the area of language arts, personal development of language arts skills, or past experiences that relate directly to the theme of the reading material)

____ Personally initiated professional development (e.g., reading of professional materials related to various aspects of language arts or personal initiative to develop one's own language arts program)

____ Personal interest in the subject area of language arts (e.g., the reading process, the grammatical aspects of a language, or the plot and character development of written selections)

____ Support or inspiration from other teachers in the area of language arts

____ Teaching experience (e.g., exposure to a variety of curricula, grade levels, student abilities, pilot programs, and teaching techniques affiliated with language arts)

____ The accessibility of supplementary language arts materials

____ The amount of accumulated time spent interacting with or instructing students in the area of language arts

_____ The amount of time and effort expended planning for the teaching of language arts

_____ The availability of a curriculum that outlines the progressive development of the skills and concepts involved in language arts

_____ The degree of importance attributed to a child's success in language arts (e.g., the far-reaching effect of such success)

_____ The extensive scope of the subject area (e.g., reading, writing, speaking, listening, spelling, and grammar)

_____ The ease of diagnosing students' needs in language arts

_____ The interest level of the reading material affiliated with the language arts curriculum

_____ The originality of instructional approaches and activities afforded by language arts

_____ The pleasure derived from student achievement and enthusiasm in language arts

APPENDIX D

QUESTIONNAIRE: CONCERNS EXISTING PRIOR TO THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

The teachers in this study discussed a variety of factors which caused them concern prior to the implementation of the Expressways Program. Those factors appear in the following list.

What factors caused you concern prior to the implementation of the Expressways Program? Please rank order a minimum of one and a maximum of five factors.

_____ The proposed implementation of the Expressways Program caused me no concerns

_____ The insufficient amount of in-service provided prior to the implementation of the Expressways Program

_____ How I would actually implement some of the goals of the Expressways Program (e.g., integrate the different subject areas or integrate the four language strands)

_____ Carrying out the "whole group" instructional approach proposed by the Expressways Program

_____ The degree of change that would exist between the Expressways Program and the program I had been using previously

_____ The degree of congruency that would occur between my personal philosophy about language arts and student learning and the philosophy underlying the Expressways Program

_____ Lack of familiarity with the Expressways Program (i.e., apprehension about the unknown)

_____ Specific aspects of the four language strands emphasized in the Expressways Program (e.g., vocabulary development, provision of evaluation materials, value of listening activities, readability of students' books, or assistance provided for the teaching of spelling)

_____ Giving up a program that I liked and felt worked very well

_____ The way students would respond to the Expressways Program and the success they would achieve with it

_____ The amount of preparation and planning the Expressways Program would require

_____ The degree to which the Expressways Program would have to be supplemented to meet district and school developed language arts learning outcomes

_____ Possible teacher supervision by administration or personnel appointed to assist with the implementation of the Expressways Program

_____ The fact that there was another change to be dealt with in the educational system

APPENDIX E

QUESTIONNAIRE ON CONCERNS EXPERIENCED DURING THE IMPLEMENTATION OF THE EXPRESSWAYS PROGRAM

The teachers in this study discussed a variety of factors which caused them concern **after** they began working with the Expressways Program. Those factors appear in the following list.

What factors caused **you** concern after you began working with the Expressways Program? Please rank order a minimum of **one** and a maximum of **five** factors.

____ The actual implementation of the Expressways Program caused me no concerns

____ The evaluation component of the Expressways Program (e.g., the limited provision of evaluation materials, the quality of the end-of-level tests, or the minimal guidance given as to how to assess student progress in the four language strands)

____ The heavy emphasis given to phonics in the Expressways Program and particular phonetic concepts, such as syllabication of words, stressed syllables, or various speech sounds associated with certain vowel and consonant combinations

____ The proposed sequential development of some phonetic concepts (e.g., the teaching of consonants before blends, the teaching of rules and exceptions in the same lesson, the teaching of long and short vowels together, or the amount of phonics taught in one lesson)

____ The limited amount of phonics in the Expressways Program

____ The pace at which one should move through the various levels of the Expressways Program

____ The "whole group" instructional approach proposed by the Expressways Program (e.g., its effectiveness in a classroom with a variety of ability levels, or its feasibility and effectiveness in a classroom with two grade levels or two or more formally defined needs groups)

____ The lack of organized in-service and formal assistance provided by district office after the Expressways Program was implemented

_____ The absence of the opportunity to talk with or observe someone who had either used the Expressways Program previously or who was also implementing the Program, to share concerns, to discuss the effectiveness of particular strategies, and to learn of possible additions or omissions that should be made in the Program

_____ The degree to which the Expressways Program had to be supplemented in particular areas, such as grammar or language usage, reinforcement activities for various concepts, or further development of an idea

_____ The amount and level of difficulty of new vocabulary found in the Expressways Program

_____ The writing strand of the Expressways Program (e.g., its limited provision of activities to develop students' writing skills or the feasibility of its commencement in the early primary grades)

_____ The level of difficulty of the Expressways Program (e.g., its effectiveness with students of varying ability levels)

_____ If teachers in other schools or districts were implementing the Expressways Program according to its underlying philosophies

_____ My ability to successfully implement one or some of the four language strands - reading, writing, speaking, and listening

_____ The choice of themes for the different levels of the Expressways Program (e.g., their degree of abstraction and meaningfulness)

_____ The difference between the Expressways Program and the language arts learning outcomes designed at the school or district level

_____ The reading strand of the Expressways Program (e.g., the limited provision for reading for enjoyment or the difficulty involved in finding reading materials to complement the themes)

_____ The actual value in changing to the Expressways Program

_____ The availability of core materials such as the student's workbooks

_____ Students' lack of preparation for coping with the activities from the listening strand of the Expressways Program

_____ The instructional quality of the student's workbooks (e.g., their level of difficulty or the format suggested for answering questions)

_____ Parental reaction to the expectations and methodologies suggested by the Expressways Program

_____ The possibility of being supervised by administrative personnel before one was comfortable with the Expressways Program

APPENDIX F

QUESTIONNAIRE: KINDS OF ADAPTATIONS MADE IN THE EXPRESSWAYS PROGRAM

The teachers in this study explained various kinds of adaptations they have made in the Expressways Program. Those kinds of adaptations are categorized in the list which follows.

How **frequently** do you feel you have made the following kinds of adaptations in the Expressways Program? Please check only **one** answer for each kind of adaptation. If a particular kind of adaptation does not apply to the levels of the Expressways Program that you have taught, please check not applicable.

ADAPTATIONS IN THE UNDERLYING GOALS OF THE EXPRESSWAYS PROGRAM	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. Stressed one or some of the four language strands (e.g., listening, reading, speaking, and writing)					
2. Treated each of the language strands as separate components without consciously stressing the interrelationship or interdependency among them					
3. Did not consciously integrate the curriculum in other areas with the language arts curriculum					
4. Attempted to integrate some subject areas but not others with the language arts					
5. Integrated other subject areas with the language arts by applying language skills in those subject areas rather than by using common themes in the content					
6. Adjusted the amount of time spent on a particular unit according to its relevancy and interest to the students					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
7. Combined some units					
8. Gave minimal attention to the development of the stipulated theme for each unit					
9. Modified the themes in different units (e.g., expanded or reduced the scope of the theme, arranged actual or verbal experiences to help students relate to the themes)					
10. Changed the suggested order of the presentation of units within the levels of the Expressways Program					
11. Changed the order of activities within a unit					
12. Borrowed activities or materials from succeeding units in order to further develop skills or concepts					
13. Planned for the teaching of units without referring to the Unit Overview Charts					
14. Modified the suggested "whole group" instructional approach (e.g., used more than one level simultaneously, used a language arts curriculum other than the Expressways Program with some students, individualized the language arts curriculum for each student)					
15. Made no provision for needs grouping within the classroom setting					
16. Maintained the same membership in the needs groups throughout the year					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
17. Changed the particular levels or number of levels proposed to be completed by each elementary grade level					
18. Emphasized different levels of the Expressways Program (e.g., spent more time on level one than other levels)					
19. Borrowed from time scheduled to teach other subjects to do instruction in language arts					
20. Gave district or school objectives priority over the objectives and the content in the Expressways Program					

ADAPTATIONS IN THE READING COMPONENT OF THE EXPRESSWAYS PROGRAM

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. Gave minimal attention to providing students with extra reading materials related to each unit theme					
2. Assigned the task of finding extra reading materials related to each theme to someone else (e.g., librarian, students)					
3. Substituted reading materials for the books suggested for students to read related to the various themes (e.g., wrote my own books, made classroom books, used stories from old basal reading series, found other related books)					
4. Replaced some stories in the students' books with other stories					
5. Spent more time introducing a story than is proposed					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
6. Arranged for students' initial exposure to a selection to be in an oral format (e.g., I read it, more capable students read it, did partnered reading, shared the reading of the selection as a class)					
7. Adapted the idea, for some students, that all reading selections should be experienced initially by reading them silently (e.g., put stories on tape, read to or with these students, used partnered reading)					
8. Attempted to read selections orally after students had read them silently					
9. Stressed oral reading more than is suggested (e.g., the students read stories on tape, or practised stories to read aloud)					
10. Increased the amount of time suggested for students to read or to be read to for enjoyment					
11. Modified questions provided to guide the interpretation of the reading selections (e.g., supplemented, simplified, deleted or reworded)					
12. Developed all of my own questions to guide the interpretation of a reading selection					
13. Required more written as opposed to oral responses for comprehension questions than is proposed					
14. Changed the suggested time for using questions to guide the interpretation of a selection (e.g., do all the questions at the end of a selection instead of throughout it or vice versa)					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
15. Provided additional stories or activities to reinforce reading comprehension or study skills (e.g., recalling details, main idea, sequencing events, making inferences, cause and effect, index usage, table of contents, etc.)					
16. Omitted reading comprehension activities suggested in the teacher's sourcebook					
17. Prioritized word attack skills and made corresponding usage of related activities (e.g., stressed context clues, downplayed phonics, emphasized dictionary usage)					
18. Changed words selected as core vocabulary or suggested to be emphasized (e.g., additions or deletions)					
19. Provided supplementary activities to reinforce students' recognition and understanding of vocabulary (e.g., cloze exercises, or additional sentences or stories using the vocabulary)					
20. Employed strategies for developing students' recognition and understanding of vocabulary not recommended by the Expressways Program (e.g., word lists, flash cards, teaching words in isolation, writing out and studying specific meanings for words)					
21. Varied the time suggested to introduce or discuss vocabulary (e.g., worked on colors before numbers, discussed vocabulary before reading a selection)					

ADAPTATIONS IN THE WRITING COMPONENT OF THE EXPRESSWAYS PROGRAM

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. Supplemented the writing component (e.g., used personal ideas, provided additional or more meaningful topics, did more group stories, included school or district objectives)					
2. Replaced the approach to writing which is used in the Expressways Program with another approach					
3. Varied the emphasis on suggested writing objectives (e.g., stressed grammar related concepts, emphasized creativity, focused mainly on paragraphing)					
4. Changed the proposed time for introduction of certain writing objectives (e.g., began writing stories before suggested, started printing earlier)					
5. Adapted group strategy for writing (e.g., did less group compositions, changed group compositions to individual assignments or very small group projects)					
6. Limited the amount of time where students were allowed complete independence in choosing a written format and corresponding topic					
7. Increased the time for discussing written assignments in advance of their completion (e.g., brainstorming)					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
8. Used alternative approaches to the suggested peer or group editing of written compositions (e.g., teacher checked compositions or worked with students individually, students did self-editing according to defined criteria, used combined effort of teacher and class to edit teacher's notes or compositions or anonymous student work)					
ADAPTATIONS IN THE LISTENING COMPONENT OF THE EXPRESSWAYS PROGRAM					
1. Supplemented or replaced listening selections (e.g., used "quality" literature, drew from personal collection of stories, set up listening centers)					
2. Expanded listening objectives (e.g., included work on listening to directions or specific instructions)					
3. Varied suggested teaching methodologies (e.g., broke long stories into sections, used additional pictures, added follow-up questions that were to be answered in a written format, did all questioning at the end of the selection)					
4. Omitted listening activities					
5. Used listening activities for a different purpose (e.g., reading comprehension)					

ADAPTATIONS IN THE SPEAKING COMPONENT OF THE EXPRESSWAYS PROGRAM	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. Supplemented the speaking component with additional activities (e.g., show and tell, speeches, oral book reports, news sharing time, more dramatization, stressed speaking in complete sentences)					
2. Modified the proposed format for group discussions (e.g., used the whole class instead of small groups, lead the discussions for the children, omitted the idea of having a recorder, limited discussion time)					
3. Changed the proposed topics for discussions					
4. Reduced the suggested number of oral activities					
ADAPTATIONS IN THE EVALUATION COMPONENT OF THE EXPRESSWAYS PROGRAM					
1. Included more written assessment than is suggested or provided in the Expressways Program (e.g., did tests after each unit, arranged for assessment before reporting sessions, included quizzes throughout the units)					
2. Made minimal use of the "Checking Achievement" sections at the end of each unit or the actual Expressways Program when developing forms of assessment					
3. Gave more attention to the evaluation of the reading and writing language strands than the listening and speaking strands					
4. Disregarded suggested use of "language record cards" for each student at the back of the teacher's sourcebook					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
5. Kept less anecdotal records of students' language achievements than is suggested by the Expressways Program (e.g., made a mental note of weaknesses, used record of marks on assessments, checked off mastery of objectives, made occasional note in plan book)					
6. Adapted the end-of-level tests (e.g., omitted sections, added questions on emphasized areas, changed suggested values, modified the format or questioning strategies)					
7. Did not administer end-of-level tests					
8. Used workbook pages designated for assessment for a different purpose (e.g., used for review, reinforcement, or diagnostic purposes)					
ADAPTATIONS IN THE SPELLING COMPONENT OF THE EXPRESSWAYS PROGRAM					
1. Replaced the spelling component of the Expressways Program with another program or supplemented another program with the words from the Expressways Program					
2. Supplemented the Expressways spelling lists with other words (e.g., CRT words, holiday words, and special words, such as months, days of the week, etc.)					
3. Adapted proposed instructional approaches (e.g., varied the number or particular combinations of words introduced simultaneously, modified pretest/posttest format)					
4. Omitted activities provided to reinforce the spelling of suggested words					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
5. Supplemented activities provided to reinforce the spelling of suggested words (e.g., developed activities or games, chose exercises from other sources)					
ADAPTATIONS IN THE CORE MATERIALS OF THE EXPRESSWAYS PROGRAM **STUDENT WORKBOOK**					
1. In my classroom I use the student's workbooks...					
2. Changed the proposed instructional approach (e.g., used teacher-directed activities as independent pages or worked with students on pages proposed to be done independently)					
3. Modified the workbook pages in some way (e.g., required sentence responses instead of one-word responses, or simplified the directions)					
4. Provided supplementary activities to facilitate completion of workbook pages					
5. Skipped pages temporarily and did them at a later time when students were more comfortable with the given skill or concept					
6. Made use of only certain levels of the Expressways student's workbooks					
7. Omitted certain activities in the student's workbooks					

PICTURE CARDS	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. In my classroom I use the picture cards...					
2. Supplemented or replaced the picture cards with my own pictures					
3. Did less story compositions in reference to picture cards than is proposed in the Expressways Program					
ADAPTATIONS IN THE SUPPLEMENTARY ACTIVITIES OR MATERIALS IN THE EXPRESSWAYS PROGRAM **INDEPENDENT ACTIVITIES OR EXPERIENCE EXTENSIONS**					
1. In my classroom I use optional experiences...					
2. Used optional experiences with only certain students (e.g., students with superior ability)					
3. Developed my own activities for enrichment					
4. Selected only optional experiences intended to be completed individually or in pairs or adapted activities to this format					
5. Selected only optional experiences intended for "whole class" use or adapted activities to this format					
6. Modified the objective, scope, topic, or directions of optional activities					
7. Used optional experiences only at particular times (e.g., beginning of the year, before holidays or special days, at the end of units)					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
PHONICS WORKBOOKS					
1. In my classroom I used the phonics workbook...					
2. Used it with only particular students (e.g., those needing reinforcement in this area)					
3. Developed my own phonics activities or used activities from other sources					
4. Changed the intended purpose of the phonics workbook (e.g., used for homework assignments, used as a form of evaluation, used materials but changed objectives)					
SOUNDING BOARD					
1. In my classroom I use the Sounding Board...					
2. Used it as an independent activity for superior students					
NOVEL					
1. In my classroom I use the novel...					
2. Modified the suggested form of presentation (e.g., read it to the students, put it on tape, read a chapter per day, did partnered reading)					
3. Extended the time frame proposed for completing the novel					

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
4. Adapted the questions or follow-up activities suggested to accompany the study of the novel					
READING CORNERS					
1. In my classroom I use the Reading Corners...					
2. Modified the suggested form of presentation (e.g., read the books to them, introduced only one book at a time, did paired reading, arranged a periodic exchange of the books)					
3. Developed projects to correspond to the Reading Corners					
SPELLING GAME					
1. In my classroom I use the Spelling Game...					
2. Modified the proposed word lists for the Spelling Game					
EXPRESSVAN					
1. In my classroom I use the Expressvan...					
2. Adapted the intended use of the Expressvan (e.g., categorized words and used it like a dictionary)					
TALK-A-ROUNDERS					
1. In my classroom I use the Talk-A-Rounders...					

APPENDIX G

QUESTIONNAIRE: REASONS FOR ADAPTING THE EXPRESSWAYS PROGRAM

The teachers in this study gave a variety of reasons for adapting the Expressways Program. Those reasons appear in the following list.

What were your reasons for adapting the Expressways Program? Please rank order a minimum of one and a maximum of five items.

____ Availability of instructional materials (e.g., additional reading materials related to the themes, a class set of materials to be shared by several classrooms)

____ Personal beliefs about teaching (e.g., effective teaching strategies, curricular integration, assessment of students' progress)

____ Insufficiency of activities to ensure mastery of skills or concepts outlined in the objectives (e.g., supplemented certain activities, omitted unnecessary repetition of activities, provided follow-up activities)

____ The incongruency of different aspects of the Expressways Program with students' abilities or established needs (e.g., unsuitable length for a reading selection, reading level was too advanced, directions were far too complicated)

____ Inconsistencies between district or school language art program and the Expressways Program (e.g., differences in objectives or in the emphasis on language strands)

____ The influence of strategies, activities, or programs that were used or worked well in the past

____ The degree of interest or enjoyment created by different aspects of the Expressways Program or the relevancy of such aspects to the students (e.g., changed topics to ones that interest students, stressed themes students liked, added questions relevant to students)

____ The desire to facilitate different aspects of the teaching process (e.g., easier to combine themes, quicker to check off mastery of objectives than doing anecdotal reports)

____ Instructional grouping arrangement (e.g., two grades in one classroom, class size, defined groups within one grade level)

____ Feeling pressed to complete the language arts curriculum within the allotted instructional time

____ The need for feedback on students' progress (e.g., needed concrete assessment for reporting sessions, accountable to administration for students' progress)

____ Availability of preparational time or the amount of time required to prepare certain aspects of the Expressways Program (e.g., there was not time to find extra reading materials, independent activities took too long to prepare)

____ Physical design of instructional materials (e.g., size, durability)

____ Personal sense of comfort with or preference for different aspects of the Expressways Program (e.g., did not feel comfortable teaching phonics, did not like group stories, preferred objective evaluation over subjective evaluation)

____ Perceived value of various aspects of the Expressways Program (e.g., assessment pages in workbook were too teacher-directed, children gained nothing from certain activities)

____ Personal awareness of all the materials developed to be used as part of the Expressways Program)

____ Scheduling circumstances (e.g., different teachers taught the same students, or definite times were scheduled for specific subjects)

____ Children's personal feelings (e.g., confidence, shyness, ego)

____ Personal familiarity with particular methodologies or approaches suggested by the Expressways Program

____ Advice of personnel who had worked with Expressways prior to my attempted implementation (e.g., teachers who had piloted the Program or teachers who had begun the Program at an earlier grade level)

____ Expectations of succeeding grade levels (e.g., knew they would have to do it in the next grade, it was good preparation for future objectives)

____ Physical setting (e.g., open classroom area, no space for independent activities)

____ Established curricula in other subject areas

APPENDIX H

RESULTS OF QUESTIONNAIRE ON KINDS OF ADAPTATIONS MADE IN THE EXPRESSWAYS PROGRAM

GR. 1--GROUP ONE (n=15)
GR. 2--GROUP TWO (n=15)
GR. 3--GROUP THREE (n=6)

ADAPTATIONS IN THE UNDERLYING GOALS OF THE EXPRESSWAYS PROGRAM

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. Stressed one or some of the four language strands (e.g., listening, reading, speaking, and writing)	GR. 1	2	3	4	6	0
	GR. 2	2	8	3	2	0
	GR. 3	1	2	0	3	0
2. Treated each of the language strands as separate components without consciously stressing the interrelationship or interdependency among them	GR. 1	0	0	3	12	0
	GR. 2	0	4	5	6	0
	GR. 3	1	1	2	2	0
3. Did not consciously integrate the curriculum in other areas with the language arts curriculum	GR. 1	1	1	2	11	0
	GR. 2	1	0	9	5	0
	GR. 3	2	3	1	0	0
4. Attempted to integrate some subject areas but not others with the language arts	GR. 1	0	4	2	9	0
	GR. 2	0	3	6	6	0
	GR. 3	0	0	4	2	0
5. Integrated other subject areas with the language arts by applying language skills in those subject areas rather than by using common themes in the content	GR. 1	4	5	4	2	0
	GR. 2	2	5	4	4	0
	GR. 3	0	3	2	1	0
6. Adjusted the amount of time spent on a particular unit according to its relevancy and interest to the students	GR. 1	6	6	2	1	0
	GR. 2	3	6	3	3	0
	GR. 3	0	4	2	0	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
7. Combined some units	GR. 1	0	2	4	9	0
	GR. 2	0	2	6	7	0
	GR. 3	0	0	2	4	0
8. Gave minimal attention to the development of the stipulated theme for each unit.	GR. 1	0	2	4	9	0
	GR. 2	1	1	4	9	0
	GR. 3	1	0	1	4	0
9. Modified the themes in different units (e.g., expanded or reduced the scope of the theme, arranged actual or verbal experiences to help students relate to the themes)	GR. 1	0	4	9	2	0
	GR. 2	2	5	5	3	0
	GR. 3	1	1	1	3	0
10. Changed the suggested order of the presentation of units within the levels of the Expressways Program	GR. 1	0	0	3	12	0
	GR. 2	1	1	2	11	0
	GR. 3	0	0	0	6	0
11. Changed the order of activities within a unit	GR. 1	4	4	7	0	0
	GR. 2	2	7	4	2	0
	GR. 3	0	2	3	1	0
12. Borrowed activities or materials from succeeding units in order to further develop skills or concepts	GR. 1	1	2	6	6	0
	GR. 2	1	5	4	5	0
	GR. 3	0	1	3	2	0
13. Planned for the teaching of units without referring to the Unit Overview Charts	GR. 1	1	4	3	7	0
	GR. 2	4	3	0	8	0
	GR. 3	1	1	1	3	0
14. Modified the suggested "whole group" instructional approach (e.g., used more than one level simultaneously, used a language arts curriculum other than the Expressways Program with some students, individualized the language arts curriculum for each student)	GR. 1	2	2	3	8	0
	GR. 2	2	0	3	10	0
	GR. 3	1	0	2	3	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
15. Made no provision for needs grouping within the classroom setting	GR. 1	0	0	0	15	0
	GR. 2	0	4	3	8	0
	GR. 3	0	2	0	4	0
16. Maintained the same membership in the needs groups throughout the year	GR. 1	0	2	1	12	0
	GR. 2	0	7	1	7	0
	GR. 3	2	2	1	1	0
17. Changed the particular levels or number of levels proposed to be completed by each elementary grade level	GR. 1	8	2	3	2	0
	GR. 2	8	2	3	2	0
	GR. 3	5	1	0	0	0
18. Emphasized different levels of the Expressways Program (e.g., spent more time on level one than other levels)	GR. 1	1	3	3	8	0
	GR. 2	1	1	4	9	0
	GR. 3	0	1	4	1	0
19. Borrowed from time scheduled to teach other subjects to do instruction in language arts	GR. 1	1	2	6	6	0
	GR. 2	0	5	4	6	0
	GR. 3	0	1	3	2	0
20. Gave district or school objectives priority over the objectives and the content in the Expressways Program	GR. 1	4	2	2	7	0
	GR. 2	6	4	3	2	0
	GR. 3	1	2	2	1	0

ADAPTATIONS IN THE READING COMPONENT OF THE EXPRESSWAYS PROGRAM

1. Gave minimal attention to providing students with extra reading materials related to each unit theme	GR. 1	1	2	2	10	0
	GR. 2	2	3	3	7	0
	GR. 3	1	1	1	3	0
2. Assigned the task of finding extra reading materials related to each theme to someone else (e.g., librarian, students)	GR. 1	0	2	7	6	0
	GR. 2	1	2	4	8	0
	GR. 3	1	0	1	4	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
3. Substituted reading materials for the books suggested for students to read related to the various themes (e.g., wrote my own books, made classroom books, used stories from old basal reading series, found other related books)	GR. 1	4	8	2	1	0
	GR. 2	3	6	5	1	0
	GR. 3	0	2	2	2	0
4. Replaced some stories in the students' books with other stories	GR. 1	0	1	4	10	0
	GR. 2	0	1	1	13	0
	GR. 3	0	0	0	6	0
5. Spent more time introducing a story than is proposed	GR. 1	2	3	4	6	0
	GR. 2	0	3	6	6	0
	GR. 3	1	0	4	1	0
6. Arranged for students' initial exposure to a selection to be in an oral format (e.g., I read it, more capable students read it, did partnered reading, shared the reading of the selection as a class)	GR. 1	4	4	3	4	0
	GR. 2	2	4	4	5	0
	GR. 3	0	3	2	1	0
7. Adapted the idea, for some students, that all reading selections should be experienced initially by reading them silently (e.g., put stories on tape, read to or with these students, used partnered reading)	GR. 1	6	7	2	0	0
	GR. 2	5	3	6	1	0
	GR. 3	1	1	2	2	0
8. Attempted to read selections orally after students had read them silently	GR. 1	4	3	8	0	0
	GR. 2	5	4	4	2	0
	GR. 3	0	4	1	1	0
9. Stressed oral reading more than is suggested (e.g., the students read stories on tape, or practised stories to read aloud)	GR. 1	1	3	5	6	0
	GR. 2	3	3	4	5	0
	GR. 3	0	3	3	0	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
10. Increased the amount of time suggested for students to read or to be read to for enjoyment	GR. 1	6	6	3	0	0
	GR. 2	4	6	4	1	0
	GR. 3	1	4	1	0	0
11. Modified questions provided to guide the interpretation of the reading selections (e.g., supplemented, simplified, deleted or reworded)	GR. 1	4	8	3	0	0
	GR. 2	4	7	4	0	0
	GR. 3	0	4	0	2	0
12. Developed all of my own questions to guide the interpretation of a reading selection	GR. 1	2	2	6	5	0
	GR. 2	0	3	7	5	0
	GR. 3	0	0	3	3	0
13. Required more written as opposed to oral responses for comprehension questions than is proposed	GR. 1	2	3	6	4	0
	GR. 2	1	4	6	4	0
	GR. 3	0	2	3	1	0
14. Changed the suggested time for using questions to guide the interpretation of a selection (e.g., do all the questions at the end of a selection instead of throughout it or vice versa)	GR. 1	0	5	9	1	0
	GR. 2	1	4	7	3	0
	GR. 3	0	0	3	3	0
15. Provided additional stories or activities to reinforce reading comprehension or study skills (e.g., recalling details, main idea, sequencing events, making inferences, cause and effect, index usage, table of contents, etc.)	GR. 1	7	6	2	0	0
	GR. 2	5	5	3	2	0
	GR. 3	1	1	4	0	0
16. Omitted reading comprehension activities suggested in the teacher's sourcebook	GR. 1	0	1	4	10	0
	GR. 2	0	0	3	12	0
	GR. 3	0	0	4	2	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
17. Prioritized word attack skills and made corresponding usage of related activities (e.g., stressed context clues, downplayed phonics, emphasized dictionary usage)	GR. 1	3	6	4	2	0
	GR. 2	4	6	4	1	0
	GR. 3	2	1	3	0	0
18. Changed words selected as core vocabulary or suggested to be emphasized (e.g., additions or deletions)	GR. 1	1	1	6	7	0
	GR. 2	5	4	4	2	0
	GR. 3	2	0	3	1	0
19. Provided supplementary activities to reinforce students' recognition and understanding of vocabulary (e.g., cloze exercises, or additional sentences or stories using the vocabulary)	GR. 1	6	5	3	1	0
	GR. 2	4	2	7	2	0
	GR. 3	1	2	3	0	0
20. Employed strategies for developing students' recognition and understanding of vocabulary not recommended by the Expressways Program (e.g., word lists, flash cards, teaching words in isolation, writing out and studying specific meanings for words)	GR. 1	1	6	4	4	0
	GR. 2	1	6	4	4	0
	GR. 3	1	2	1	2	0
21. Varied the time suggested to introduce or discuss vocabulary (e.g., worked on colors before numbers, discussed vocabulary before reading a selection)	GR. 1	1	4	5	5	0
	GR. 2	2	7	3	3	0
	GR. 3	0	1	3	2	0

ADAPTATIONS IN THE WRITING COMPONENT OF THE EXPRESSWAYS PROGRAM

1. Supplemented the writing component (e.g., used personal ideas, provided additional or more meaningful topics, did more group stories, included school or district objectives)	GR. 1	7	6	1	1	0
	GR. 2	3	8	2	2	0
	GR. 3	3	2	1	0	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
2. Replaced the approach to writing which is used in the Expressways Program with another approach	GR. 1	1	3	3	8	0
	GR. 2	0	5	6	4	0
	GR. 3	0	3	1	2	0
3. Varied the emphasis on suggested writing objectives (e.g., stressed grammar related concepts, emphasized creativity, focused mainly on paragraphing)	GR. 1	0	4	6	5	0
	GR. 2	2	9	3	1	0
	GR. 3	1	1	4	0	0
4. Changed the proposed time for introduction of certain writing objectives (e.g., began writing stories before suggested, started printing earlier)	GR. 1	3	3	7	2	0
	GR. 2	3	4	4	4	0
	GR. 3	1	1	4	0	0
5. Adapted group strategy for writing (e.g., did less group compositions, changed group compositions to individual assignments or very small group projects)	GR. 1	0	6	5	4	0
	GR. 2	4	6	4	1	0
	GR. 3	2	1	3	0	0
6. Limited the amount of time where students were allowed completed indepedence in choosing a written format and corresponding topic	GR. 1	0	6	1	8	0
	GR. 2	3	4	5	3	0
	GR. 3	1	2	3	0	0
7. Increased the time for discussing written assignments in advance of their completion (e.g., brainstorming)	GR. 1	2	5	8	0	0
	GR. 2	4	4	4	3	0
	GR. 3	2	0	3	1	0
8. Used alternative approaches to the suggested peer or group editing of written compositions (e.g., teacher checked compositions or worked with students individually, students did self-editing according to defined criteria, used combined effort of teacher and class to edit teacher's notes or compositions or anonymous student work)	GR. 1	1	4	9	1	0
	GR. 2	2	9	2	2	0
	GR. 3	1	5	0	0	0

ADAPTATIONS IN THE LISTENING COMPONENT OF THE EXPRESSWAYS PROGRAM

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. Supplemented or replaced listening selections (e.g., used "quality" literature, drew from personal collection of stories, set up listening centers)	GR. 1	3	3	5	4	0
	GR. 2	4	1	6	4	0
	GR. 3	0	1	3	2	0
2. Expanded listening objectives (e.g., included work on listening to directions or specific instructions)	GR. 1	4	6	4	1	0
	GR. 2	3	4	6	2	0
	GR. 3	1	0	3	2	0
3. Varied suggested teaching methodologies (e.g., broke long stories into sections, used additional pictures, added follow-up questions that were to be answered in a written format, did all questioning at the end of the selection)	GR. 1	3	4	5	3	0
	GR. 2	2	7	4	2	0
	GR. 3	2	1	1	2	0
4. Omitted listening activities	GR. 1	0	0	1	14	0
	GR. 2	0	0	2	13	0
	GR. 3	0	0	2	4	0
5. Used listening activities for a different purpose (e.g., reading comprehension)	GR. 1	1	1	7	6	0
	GR. 2	0	2	7	6	0
	GR. 3	0	0	1	5	0

ADAPTATIONS IN THE SPELLING COMPONENT OF THE EXPRESSWAYS PROGRAM

1. Supplemented the speaking component with additional activities (e.g., show and tell, speeches, oral book reports, news sharing time, more dramatization, stressed speaking in complete sentences)	GR. 1	6	5	3	1	0
	GR. 2	3	6	4	2	0
	GR. 3	1	1	4	0	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
2. Modified the proposed format for group discussions (e.g., used the whole class instead of small groups, lead the discussions for the children, omitted the idea of having a recorder, limited discussion time)	GR. 1	2	4	4	4	1
	GR. 2	6	3	5	1	0
	GR. 3	2	2	2	0	0
3. Changed the proposed topics for discussions	GR. 1	1	3	9	2	0
	GR. 2	1	2	6	6	0
	GR. 3	0	0	3	3	0
4. Reduced the suggested number of oral activities	GR. 1	0	3	7	5	0
	GR. 2	1	4	6	4	0
	GR. 3	0	2	3	1	0

ADAPTATIONS IN THE EVALUATION COMPONENT OF THE EXPRESSWAYS PROGRAM

1. Included more written assessment than is suggested or provided in the Expressways Program (e.g., did tests after each unit, arranged for assessment before reporting sessions, included quizzes throughout the units)	GR. 1	9	3	0	3	0
	GR. 2	11	3	1	0	0
	GR. 3	3	1	2	0	0
2. Made minimal use of the "Checking Achievement" sections at the end of each unit or the actual Expressways Program when developing forms of assessment	GR. 1	2	5	2	6	0
	GR. 2	8	2	2	3	0
	GR. 3	2	2	1	1	0
3. Gave more attention to the evaluation of the reading and writing language strands than the listening and speaking strands	GR. 1	1	6	3	5	0
	GR. 2	4	5	1	5	0
	GR. 3	2	2	1	1	0
4. Disregarded suggested use of "language record cards" for each student at the back of the teacher's sourcebook	GR. 1	11	3	1	0	0
	GR. 2	14	1	0	0	0
	GR. 3	5	1	0	0	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
5. Kept less anecdotal records of students' language achievements than is suggested by the Expressways Program (e.g., made a mental note of weaknesses, used record of marks on assessments, checked off mastery of objectives, made occasional note in plan book)	GR. 1	6	7	2	0	0
	GR. 2	11	3	1	0	0
	GR. 3	3	2	1	0	0
6. Adapted the end-of-level tests (e.g., omitted sections, added questions on emphasized areas, changed suggested values, modified the format or questioning strategies)	GR. 1	7	1	3	4	0
	GR. 2	8	1	2	4	0
	GR. 3	2	1	2	1	0
7. Did not administer end-of-level tests	GR. 1	2	2	2	9	0
	GR. 2	3	1	1	10	0
	GR. 3	0	0	0	6	0
8. Used workbook pages designated for assessment for a different purpose (e.g., used for review, reinforcement, or diagnostic purposes)	GR. 1	3	3	4	5	0
	GR. 2	6	5	3	1	0
	GR. 3	2	1	2	1	0

ADAPTATIONS IN THE SPELLING COMPONENT OF THE EXPRESSWAYS PROGRAM

1. Replaced the spelling component of the Expressways Program with another program or supplemented another program with the words from the Expressways Program	GR. 1	3	0	0	5	7
	GR. 2	2	0	0	4	9
	GR. 3	1	0	1	1	3
2. Supplemented the Expressways spelling lists with other words (e.g., CRT words, holiday words, and special words, such as months, days of the week, etc.)	GR. 1	5	0	2	1	7
	GR. 2	4	1	0	1	9
	GR. 3	2	0	1	0	3

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
3. Adapted proposed instructional approaches (e.g., varied the number or particular combinations of words introduced simultaneously, modified pretest/posttest format)	GR. 1	5	0	2	1	7
	GR. 2	3	1	1	1	9
	GR. 3	0	2	1	0	3
4. Omitted activities provided to reinforce the spelling of suggested words	GR. 1	1	1	2	4	7
	GR. 2	1	1	2	2	9
	GR. 3	0	1	1	1	3
5. Supplemented activities provided to reinforce the spelling of suggested words (e.g., developed activities or games, chose exercises from other sources)	GR. 1	3	3	0	2	7
	GR. 2	1	2	2	1	9
	GR. 3	0	0	2	1	3

ADAPTATIONS IN THE CORE MATERIALS OF THE EXPRESSWAYS PROGRAM

STUDENT WORKBOOK

1. In my classroom I use the students' workbooks...	GR. 1	4	8	1	1	1
	GR. 2	7	6	2	0	0
	GR. 3	3	2	1	0	0
2. Changed the proposed instructional approach (e.g., used teacher-directed activities as independent pages or worked with students on pages proposed to be done independently)	GR. 1	0	6	5	3	1
	GR. 2	1	8	4	2	0
	GR. 3	1	1	4	0	0
3. Modified the workbook pages in some way (e.g., required sentence responses instead of one-word responses, or simplified the directions)	GR. 1	2	3	8	1	1
	GR. 2	1	7	6	1	0
	GR. 3	2	1	2	1	0
4. Provided supplementary activities to facilitate completion of workbook pages	GR. 1	1	2	8	3	1
	GR. 2	0	5	7	3	0
	GR. 3	1	1	2	2	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
5. Skipped pages temporarily and did them at a later time when students were more comfortable with the given skill or concept	GR. 1	2	3	8	1	1
	GR. 2	1	1	8	5	0
	GR. 3	0	0	4	2	0
6. Made use of only certain levels of the Expressways student's workbooks	GR. 1	3	1	0	10	1
	GR. 2	0	1	2	12	0
	GR. 3	0	1	0	5	0
7. Omitted certain activities in the student's workbooks	GR. 1	2	1	6	5	1
	GR. 2	1	4	9	1	0
	GR. 3	1	1	2	2	0

PICTURE CARDS

1. In my classroom I use the picture cards...	GR. 1	1	2	1	0	11
	GR. 2	1	0	0	1	13
	GR. 3	0	1	0	0	5
2. Supplemented or replaced the picture cards with my own pictures	GR. 1	0	2	2	0	11
	GR. 2	0	0	0	2	13
	GR. 3	0	0	1	0	5
3. Did less story compositions in reference to picture cards than is proposed in the Expressways Program	GR. 1	1	0	1	2	11
	GR. 2	0	0	0	2	13
	GR. 3	0	0	0	1	5

ADAPTATIONS IN THE SUPPLEMENTARY ACTIVITIES OR MATERIALS IN THE EXPRESSWAYS PROGRAM

INDEPENDENT ACTIVITIES OR EXPERIENCE EXTENSIONS

1. In my classroom I use optional experiences...	GR. 1	3	4	5	3	0
	GR. 2	0	3	6	6	0
	GR. 3	0	0	6	0	0
2. Used optional experiences with only certain students (e.g., students with superior ability)	GR. 1	0	1	5	9	0
	GR. 2	0	1	7	7	0
	GR. 3	0	0	3	3	0

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
3. Developed my own activities for enrichment	GR. 1	3	5	6	1	0
	GR. 2	2	7	5	1	0
	GR. 3	1	1	3	1	0
4. Selected only optional experiences intended to be completed individually or in pairs or adapted activities to this format	GR. 1	0	2	4	9	0
	GR. 2	0	1	12	2	0
	GR. 3	1	0	3	2	0
5. Selected only optional experiences intended for "whole class" use or adapted activities to this format	GR. 1	0	0	6	9	0
	GR. 2	0	3	7	5	0
	GR. 3	0	0	4	2	0
6. Modified the objective, scope, topic, or directions of optional activities	GR. 1	0	6	6	3	0
	GR. 2	1	2	9	3	0
	GR. 3	1	2	1	2	0
7. Used optional experiences only at particular times (e.g., beginning of the year, before holidays or special days, at the end of units)	GR. 1	0	3	2	10	0
	GR. 2	0	1	4	10	0
	GR. 3	0	1	1	4	0

PHONICS WORKBOOKS

1. In my classroom I use the phonics workbook...	GR. 1	0	2	5	5	3
	GR. 2	0	0	6	1	8
	GR. 3	0	0	2	1	3
2. Used it with only particular students (e.g., those needing reinforcement in this area)	GR. 1	2	2	3	5	3
	GR. 2	0	2	1	4	8
	GR. 3	0	2	1	0	3
3. Developed my own phonics activities or used activities from other sources	GR. 1	2	5	3	2	3
	GR. 2	0	1	4	2	8
	GR. 3	0	1	1	1	3
4. Changed the intended purpose of the phonics workbook (e.g., used for homework assignments, used as a form of evaluation, used materials but changed objectives)	GR. 1	0	1	3	8	3
	GR. 2	1	1	3	2	8
	GR. 3	0	1	0	2	3

SOUNDING BOARD

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. In my classroom I use the Sounding Board...	GR. 1	1	0	0	3	11
	GR. 2	1	0	1	8	5
	GR. 3	0	0	1	2	3
2. Used it as an independent activity for superior students	GR. 1	0	0	0	4	11
	GR. 2	1	0	0	9	5
	GR. 3	0	0	1	2	3

NOVEL

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. In my classroom I use the novel...	GR. 1	7	0	0	0	8
	GR. 2	5	3	0	0	7
	GR. 3	3	0	0	0	3
2. Modified the suggested form of presentation (e.g., read it to the students, put it on tape, read a chapter per day, did partnered reading)	GR. 1	3	1	1	2	8
	GR. 2	1	5	1	1	7
	GR. 3	1	1	0	1	3
3. Extended the time frame proposed for completing the novel	GR. 1	2	1	2	2	8
	GR. 2	2	3	1	2	7
	GR. 3	1	0	0	2	3
4. Adapted the questions or follow-up activities suggested to accompany the study of the novel	GR. 1	3	3	0	1	8
	GR. 2	2	2	4	0	7
	GR. 3	1	1	1	0	3

READING CORNERS

		Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
1. In my classroom I use the Reading Corners...	GR. 1	2	4	2	0	7
	GR. 2	1	0	3	1	10
	GR. 3	0	3	0	0	3
2. Modified the suggested form of presentation (e.g., read the books to them, introduced only one book at a time, did paired reading, arranged a periodic exchange of the books)	GR. 1	2	3	3	0	7
	GR. 2	1	0	2	2	10
	GR. 3	0	1	2	0	3

SOUNDING BOARD

3. Developed projects to correspond to the Reading Corners

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
GR. 1	0	0	2	6	7
GR. 2	0	0	1	4	10
GR. 3	0	0	2	1	3

SPELLING GAME

1. In my classroom I use the Spelling Game...

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
GR. 1	0	0	2	1	12
GR. 2	0	0	0	2	13
GR. 3	0	0	2	0	4

2. Modified the proposed word lists for the Spelling Game

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
GR. 1	0	0	1	2	12
GR. 2	1	0	0	1	13
GR. 3	0	0	1	1	4

EXPRESSVAN

1. In my classroom I use the Expressvan...

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
GR. 1	1	0	1	1	12
GR. 2	0	0	0	0	15
GR. 3	0	0	0	0	6

2. Adapted the intended use of the Expressvan (e.g., categorized words and used it like a dictionary)

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
GR. 1	0	1	1	1	12
GR. 2	0	0	0	0	15
GR. 3	0	0	0	0	6

TALK-A-ROUNDERS

1. In my classroom I use the Talk-A-Rounders...

	Almost Always	Frequently	Occasionally	Almost Never	Not Applicable
GR. 1	1	1	0	1	12
GR. 2	0	0	0	0	15
GR. 3	0	0	1	0	5